



**U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES**

The Supplementary Appendices for the

# Medicare Fee-for-Service 2012 Improper Payment Rate Report

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# Appendix A: List of Acronyms

<b>AICD</b>	Automated Implantable Cardioverter-Defibrillator
<b>AMA</b>	American Medical Association
<b>AMI</b>	Acute Myocardial Infarction
<b>ASC</b>	Ambulatory Surgery Center
<b>BETOS</b>	Berenson-Eggers Type of Service
<b>CAH</b>	Critical Access Hospital
<b>CAT/CT</b>	Computer Tomography
<b>CERT</b>	Comprehensive Error Rate Testing
<b>CMHC</b>	Community Mental Health Center
<b>CMS</b>	Centers for Medicare & Medicaid Services
<b>CORF</b>	Comprehensive Outpatient Rehabilitation Facility
<b>CPAP</b>	Continuous Positive Airway Pressure
<b>CPT</b>	Current Procedural Terminology
<b>CRNA</b>	Certified Registered Nurse Anesthetist
<b>DRG</b>	Diagnosis Related Group
<b>DME</b>	Durable Medical Equipment
<b>E&amp;M</b>	Evaluation and Management
<b>EKG</b>	Electrocardiogram
<b>ESRD</b>	End-Stage Renal Disease
<b>FFS</b>	Fee-for-Service
<b>FI</b>	Fiscal Intermediary
<b>FQHC</b>	Federally Qualified Health Center
<b>FY</b>	Fiscal Year
<b>GI</b>	Gastrointestinal
<b>HCPCS</b>	Healthcare Common Procedure Coding System
<b>HF</b>	Heart Failure
<b>HHA</b>	Home Health Agency
<b>IDTF</b>	Independent Diagnostic Testing Facility
<b>MAC</b>	Medicare Administrative Contractor
<b>MRA</b>	Magnetic Resonance Angiogram
<b>MRI</b>	Magnetic Resonance Imaging
<b>MS-DRG</b>	Medicare Severity Diagnosis Related Group
<b>OIG</b>	Office of the Inspector General
<b>OPPS</b>	Outpatient Prospective Payment System
<b>PPS</b>	Prospective Payment System
<b>QIO</b>	Quality Improvement Organization
<b>RAP</b>	Request for Anticipated Payment

<b>RHC</b>	Rural Health Clinic
<b>RTP</b>	Return to Provider
<b>SNF</b>	Skilled Nursing Facility
<b>TENS</b>	Transcutaneous Electrical Nerve Stimulation
<b>TOS</b>	Type of Service

# Appendix B: Projected Improper Payments and Type of Error by Type of Service for Each Claim Type

This series of tables is sorted in descending order by projected improper payments. All estimates in this table are based on a minimum of 30 lines in the sample. Some columns and/or rows may not sum correctly due to rounding.

**Table B1: Top 20 Service Types with Highest Improper Payments: Part B**

Service Type Billed to Carriers (BETOS codes)	Projected Improper Payments	Improper Payment Rate	95% Confidence Interval	Type of Error				
				No Doc	Insufficient Doc	Medical Necessity	Incorrect Coding	Other
All Other Codes	\$1,387,725,483	4.4%	3.6% - 5.2%	1.7%	86.7%	8.6%	2.8%	0.1%
Office visits - established	\$1,301,792,174	9.3%	8.2% - 10.4%	2.6%	44.3%	0.1%	52.5%	0.5%
Hospital visit - subsequent	\$927,123,400	16.0%	14.2% - 17.7%	4.4%	45.8%	0.0%	49.4%	0.3%
Hospital visit - initial	\$782,408,761	26.9%	24.3% - 29.5%	2.2%	28.2%	0.0%	69.1%	0.4%
Minor procedures - other (Medicare fee schedule)	\$700,731,052	20.4%	17.3% - 23.6%	18.5%	71.8%	4.1%	5.1%	0.5%
Lab tests - other (non-Medicare fee schedule)	\$569,152,817	21.4%	17.7% - 25.0%	2.7%	96.0%	1.1%	0.0%	0.3%
Office visits - new	\$496,218,893	18.6%	15.8% - 21.3%	2.4%	6.7%	0.0%	90.9%	0.0%
Nursing home visit	\$290,014,006	16.9%	13.9% - 19.9%	5.4%	37.7%	0.0%	56.8%	0.0%
Chiropractic	\$277,795,837	47.4%	42.4% - 52.5%	0.6%	76.2%	22.9%	0.2%	0.2%
Oncology - radiation therapy	\$259,226,130	19.7%	0.3% - 39.2%	8.9%	90.7%	0.0%	0.4%	0.0%
Hospital visit - critical care	\$236,000,814	26.3%	19.3% - 33.3%	0.0%	71.7%	1.2%	27.1%	0.0%
Ambulance	\$229,988,699	4.2%	1.9% - 6.4%	31.3%	40.9%	18.4%	9.4%	0.0%
Lab tests - other (Medicare fee schedule)	\$205,591,359	9.0%	(0.6%) - 18.6%	0.0%	98.8%	0.1%	1.1%	0.0%
Specialist - psychiatry	\$193,152,827	16.4%	11.9% - 20.9%	2.0%	95.8%	0.0%	0.8%	1.4%
Other drugs	\$187,824,361	4.1%	0.6% - 7.6%	0.0%	97.6%	0.3%	1.5%	0.5%
Emergency room visit	\$186,665,449	9.3%	7.2% - 11.4%	0.0%	15.1%	0.0%	84.5%	0.4%
Advanced imaging - MRI/MRA: other	\$172,189,911	10.8%	3.7% - 17.9%	0.0%	100.0%	0.0%	0.0%	0.0%
Other tests - other	\$135,681,671	9.8%	5.1% - 14.4%	0.0%	100.0%	0.0%	0.0%	0.0%
Ambulatory procedures - skin	\$125,204,340	6.5%	1.6% - 11.3%	10.4%	78.2%	8.9%	2.5%	0.0%
Dialysis services (Medicare Fee Schedule)	\$120,048,475	13.3%	6.3% - 20.3%	20.1%	61.0%	0.0%	18.9%	0.0%
Lab tests - blood counts	\$79,038,200	23.2%	19.1% - 27.4%	0.6%	83.9%	0.0%	15.4%	0.0%
All Type of Services (Incl. Codes Not Listed)	\$8,863,574,658	9.9%	9.1% - 10.8%	4.8%	61.7%	3.1%	30.0%	0.3%

**Table B2: Top 20 Service Types with Highest Improper Payments: DME**

Service Type Billed to DME	Projected Improper Payments	Improper Payment Rate	95% Confidence Interval	Type of Error				
				No Doc	Insufficient Doc	Medical Necessity	Incorrect Coding	Other
Oxygen Supplies/Equipment	\$1,411,500,893	80.9%	78.7% - 83.1%	0.3%	97.6%	1.6%	0.2%	0.2%
Glucose Monitor	\$1,080,347,544	80.7%	78.0% - 83.4%	0.4%	93.5%	5.5%	0.1%	0.6%
All Other Codes	\$699,074,519	53.9%	46.1% - 61.7%	1.4%	91.7%	2.0%	0.1%	4.9%
Nebulizers & Related Drugs	\$445,927,357	46.7%	28.2% - 65.3%	0.3%	99.3%	0.2%	0.2%	0.1%
CPAP	\$356,089,124	56.0%	49.4% - 62.7%	0.5%	98.2%	1.3%	0.0%	0.0%
Wheelchairs Motorized	\$297,541,969	84.6%	72.5% - 96.7%	0.1%	58.8%	41.0%	0.0%	0.0%
Enteral Nutrition	\$233,123,575	57.3%	47.2% - 67.4%	0.0%	98.9%	0.8%	0.4%	0.0%
Lower Limb Prostheses	\$232,757,587	72.3%	60.1% - 84.4%	0.0%	99.3%	0.7%	0.0%	0.0%
Immunosuppressive Drugs	\$193,330,847	50.4%	37.2% - 63.7%	0.0%	99.4%	0.0%	0.4%	0.2%
Wheelchairs Manual	\$180,883,940	88.4%	84.2% - 92.6%	2.1%	92.4%	4.6%	0.9%	0.0%
Hospital Beds/Accessories	\$177,276,317	87.8%	83.5% - 92.1%	1.0%	96.0%	2.2%	0.4%	0.4%
Diabetic Shoes	\$174,540,380	74.3%	65.9% - 82.7%	1.0%	97.4%	1.3%	0.0%	0.3%
Wheelchairs Options/Accessories	\$153,886,907	74.3%	61.3% - 87.3%	1.7%	88.8%	9.3%	0.1%	0.1%
Parenteral Nutrition	\$135,623,881	67.9%	48.8% - 87.0%	0.0%	99.5%	0.0%	0.5%	0.0%
Lower Limb Orthoses	\$114,233,496	42.1%	26.3% - 57.9%	0.5%	91.8%	5.4%	1.7%	0.6%
Infusion Pumps & Related Drugs	\$108,370,786	45.3%	19.9% - 70.6%	0.0%	93.0%	3.8%	0.0%	3.2%
Negative Pressure Wound Therapy	\$92,772,963	55.1%	35.2% - 75.0%	2.6%	97.4%	0.0%	0.0%	0.0%
Surgical Dressings	\$92,272,310	63.2%	46.6% - 79.9%	0.0%	98.5%	0.9%	0.6%	0.0%
Ostomy Supplies	\$86,171,606	41.4%	30.6% - 52.3%	0.5%	99.5%	0.0%	0.0%	0.0%
Respiratory Assist Device	\$85,118,486	67.1%	56.1% - 78.1%	0.0%	95.7%	4.3%	0.0%	0.0%
Support Surfaces	\$62,161,492	89.8%	84.7% - 95.0%	0.2%	98.9%	0.5%	0.2%	0.2%
All Type of Services (Incl. Codes Not Listed)	\$6,413,005,977	66.0%	62.8% - 69.2%	0.5%	94.2%	4.2%	0.2%	0.8%



**Table B3: Top 20 Service Types with Highest Improper Payments: Part A Excluding Inpatient Hospital PPS**

Service Type Billed to Part A excluding Inpatient Hospital PPS (Type of Bill)	Projected Improper Payments	Improper Payment Rate	95% Confidence Interval	Type of Error				
				No Doc	Insufficient Doc	Medical Necessity	Incorrect Coding	Other
Hospital Outpatient	\$1,757,835,549	4.2%	3.0% - 5.3%	6.7%	80.0%	1.5%	11.5%	0.2%
SNF Inpatient	\$1,497,222,348	4.8%	3.3% - 6.2%	0.0%	60.3%	5.7%	22.4%	11.6%
Home Health	\$1,186,583,023	6.1%	4.7% - 7.6%	1.7%	45.9%	44.3%	8.1%	0.0%
Clinic ESRD	\$523,361,086	5.3%	3.5% - 7.1%	0.1%	98.9%	0.0%	1.0%	0.0%
Hospital Inpatient (Part A)	\$510,700,575	5.3%	1.7% - 8.9%	0.0%	85.4%	14.6%	0.0%	0.0%
Critical Access Hospital	\$358,029,436	10.0%	7.0% - 13.0%	0.0%	92.3%	2.4%	5.3%	0.0%
Hospital Other Part B	\$191,892,507	37.2%	32.3% - 42.2%	0.0%	95.4%	3.7%	0.9%	0.0%
Hospital Based Hospice	\$173,368,799	10.8%	(2.6%) - 24.1%	0.0%	17.5%	80.2%	2.3%	0.0%
Nonhospital Based Hospice	\$124,462,640	1.0%	0.1% - 1.9%	0.0%	36.8%	49.0%	14.2%	0.0%
SNF Inpatient Part B	\$87,485,158	3.8%	1.4% - 6.2%	0.7%	93.9%	0.0%	5.4%	0.0%
All Codes With Less Than 30 Claims	\$79,081,364	3.3%	(1.5%) - 8.0%	0.0%	99.0%	0.0%	1.0%	0.0%
Clinical Rural Health	\$47,276,386	5.1%	2.5% - 7.6%	11.6%	88.4%	0.0%	0.0%	0.0%
Hospital Inpatient Part B	\$32,437,276	11.3%	3.2% - 19.3%	0.0%	99.7%	0.0%	0.3%	0.0%
Clinic Opt	\$30,320,418	6.8%	5.6% - 7.9%	0.0%	95.9%	0.0%	4.1%	0.0%
SNF Outpatient	\$27,542,250	17.3%	12.4% - 22.1%	0.0%	100.0%	0.0%	0.0%	0.0%
Federally Qualified Health Centers (Effective April 1, 2010)	\$12,623,991	2.4%	(0.8%) - 5.5%	0.0%	100.0%	0.0%	0.0%	0.0%
Clinic – Freestanding (Effective April 1, 2010)	\$6,853,123	28.2%	(1.3%) - 57.7%	0.0%	100.0%	0.0%	0.0%	0.0%
All Type of Services (Incl. Codes Not Listed)	\$6,647,075,928	4.8%	4.2% - 5.5%	2.2%	70.8%	14.0%	10.4%	2.7%

**Table B4: Top 20 Service Types with Highest Improper Payments: Part A Inpatient Hospital PPS**

Service Type Billed to Part A Inpatient Hospital PPS (MS-DRG Groups)	Projected Improper Payments	Improper Payment Rate	95% Confidence Interval	Type of Error				
				No Doc	Insufficient Doc	Medical Necessity	Incorrect Coding	Other
All Other Codes	\$5,120,014,645	6.6%	5.6% - 7.6%	0.0%	11.6%	70.1%	17.5%	0.9%
Major Joint Replacement Or Reattachment Of Lower Extremity (469 , 470)	\$711,178,020	13.2%	8.3% - 18.1%	1.0%	18.4%	80.4%	0.3%	0.0%
Permanent Cardiac Pacemaker Implant (242 , 243 , 244)	\$489,304,473	33.9%	23.0% - 44.9%	0.0%	1.2%	98.4%	0.4%	0.0%
Chronic Obstructive Pulmonary Disease (190 , 191 , 192)	\$443,134,295	14.4%	8.3% - 20.6%	0.0%	0.0%	95.9%	4.1%	0.0%
Heart Failure & Shock (291 , 292 , 293)	\$331,229,269	8.4%	4.7% - 12.1%	0.0%	15.6%	60.8%	23.6%	0.0%
Other Vascular Procedures (252 , 253 , 254)	\$278,113,467	17.8%	13.4% - 22.1%	0.0%	3.0%	95.2%	1.8%	0.0%
Kidney & Urinary Tract Infections (689 , 690)	\$260,516,230	15.8%	4.2% - 27.4%	17.1%	32.8%	44.2%	5.9%	0.0%
Renal Failure (682 , 683 , 684)	\$248,478,911	10.6%	4.5% - 16.7%	19.9%	1.8%	45.0%	33.3%	0.0%
Syncope & Collapse (312)	\$230,255,837	28.7%	18.8% - 38.7%	0.0%	14.7%	82.8%	2.5%	0.0%
Perc Cardiovasc Proc W Drug-Eluting Stent (246 , 247)	\$229,480,863	13.9%	9.6% - 18.2%	0.0%	45.8%	52.1%	2.1%	0.0%
Cardiac Defibrillator Implant W/O Cardiac Cath (226 , 227)	\$228,760,878	36.3%	29.8% - 42.7%	0.0%	13.1%	79.5%	7.0%	0.3%
Nutritional & Misc Metabolic Disorders (640 , 641)	\$224,025,239	23.1%	14.3% - 31.9%	0.0%	0.0%	91.3%	8.7%	0.0%
Chest Pain (313)	\$221,342,441	47.7%	35.8% - 59.5%	13.3%	0.0%	86.7%	0.0%	0.0%
Esophagitis, Gastroent & Misc Digest Disorders (391 , 392)	\$217,782,355	18.1%	9.9% - 26.4%	0.0%	26.3%	72.9%	0.8%	0.0%
Extensive O.R. Procedure Unrelated To Principal Diagnosis (981 , 982 , 983)	\$217,649,136	11.1%	7.0% - 15.2%	0.0%	0.0%	62.1%	37.9%	0.0%
G.I. Hemorrhage (377 , 378 , 379)	\$216,979,795	10.4%	6.6% - 14.2%	0.0%	1.6%	72.5%	25.9%	0.0%
Spinal Fusion Except Cervical (459 , 460)	\$215,603,671	12.7%	6.3% - 19.1%	0.0%	3.0%	96.5%	0.5%	0.1%
Other Circulatory System Diagnoses (314 , 315 , 316)	\$198,820,100	19.6%	8.5% - 30.8%	0.0%	16.4%	80.7%	2.9%	0.0%
Psychoses (885)	\$170,959,677	7.1%	4.4% - 9.9%	0.0%	67.5%	32.5%	0.0%	0.0%
Circulatory Disorders Except Ami, W Card Cath (286 , 287)	\$146,345,169	13.8%	7.4% - 20.1%	0.0%	19.5%	80.5%	0.0%	0.0%
Uterine & Adnexa Proc For Non-Malignancy (742, 743)	\$134,596,458	57.9%	52.7% - 63.1%	0.0%	0.0%	98.3%	1.7%	0.0%
All Type of Services (Incl. Codes Not Listed)	\$10,534,570,928	9.3%	8.3% - 10.4%	1.2%	12.3%	73.8%	12.3%	0.4%

# Appendix C: Improper Payment Rates and Type of Error by Type of Service for Each Claim Type

Appendix C tables are sorted in descending order by improper payment rate. Some columns and/or rows may not sum correctly due to rounding.

**Table C1: Top 20 Service Type Improper Payment Rates: Part B**

Service Type Billed to Part B (BETOS codes)	Improper Payment Rate	95% Confidence Interval	Type of Error				
			No Doc	Insufficient Doc	Medical Necessity	Incorrect Coding	Other
Chiropractic	47.4%	42.4% - 52.5%	0.6%	76.2%	22.9%	0.2%	0.2%
Hospital visit - initial	26.9%	24.3% - 29.5%	2.2%	28.2%	0.0%	69.1%	0.4%
Hospital visit - critical care	26.3%	19.3% - 33.3%	0.0%	71.7%	1.2%	27.1%	0.0%
Lab tests - blood counts	23.2%	19.1% - 27.4%	0.6%	83.9%	0.0%	15.4%	0.0%
Lab tests - other (non-Medicare fee schedule)	21.4%	17.7% - 25.0%	2.7%	96.0%	1.1%	0.0%	0.3%
Minor procedures - other (Medicare fee schedule)	20.4%	17.3% - 23.6%	18.5%	71.8%	4.1%	5.1%	0.5%
Oncology - radiation therapy	19.7%	0.3% - 39.2%	8.9%	90.7%	0.0%	0.4%	0.0%
Office visits - new	18.6%	15.8% - 21.3%	2.4%	6.7%	0.0%	90.9%	0.0%
Nursing home visit	16.9%	13.9% - 19.9%	5.4%	37.7%	0.0%	56.8%	0.0%
Specialist - psychiatry	16.4%	11.9% - 20.9%	2.0%	95.8%	0.0%	0.8%	1.4%
Hospital visit - subsequent	16.0%	14.2% - 17.7%	4.4%	45.8%	0.0%	49.4%	0.3%
Dialysis services (Medicare Fee Schedule)	13.3%	6.3% - 20.3%	20.1%	61.0%	0.0%	18.9%	0.0%
Advanced imaging - MRI/MRA: other	10.8%	3.7% - 17.9%	0.0%	100.0%	0.0%	0.0%	0.0%
Other tests - other	9.8%	5.1% - 14.4%	0.0%	100.0%	0.0%	0.0%	0.0%
Office visits - established	9.3%	8.2% - 10.4%	2.6%	44.3%	0.1%	52.5%	0.5%
Emergency room visit	9.3%	7.2% - 11.4%	0.0%	15.1%	0.0%	84.5%	0.4%
Lab tests - other (Medicare fee schedule)	9.0%	(0.6%) - 18.6%	0.0%	98.8%	0.1%	1.1%	0.0%
Ambulatory procedures - skin	6.5%	1.6% - 11.3%	10.4%	78.2%	8.9%	2.5%	0.0%
All Other Codes	4.4%	3.6% - 5.2%	1.7%	86.7%	8.6%	2.8%	0.1%
Ambulance	4.2%	1.9% - 6.4%	31.3%	40.9%	18.4%	9.4%	0.0%
Other drugs	4.1%	0.6% - 7.6%	0.0%	97.6%	0.3%	1.5%	0.5%
All Types of Services	9.9%	9.1% - 10.8%	4.8%	61.7%	3.1%	30.0%	0.3%

**Table C2: Top 20 Service Type Improper Payment Rates: DME**

Service Type Billed to DMEs	Improper Payment Rate	95% Confidence Interval	Type of Error				
			No Doc	Insufficient Doc	Medical Necessity	Incorrect Coding	Other
Support Surfaces	89.8%	84.7% - 95.0%	0.2%	98.9%	0.5%	0.2%	0.2%
Wheelchairs Manual	88.4%	84.2% - 92.6%	2.1%	92.4%	4.6%	0.9%	0.0%
Hospital Beds/Accessories	87.8%	83.5% - 92.1%	1.0%	96.0%	2.2%	0.4%	0.4%
Wheelchairs Motorized	84.6%	72.5% - 96.7%	0.1%	58.8%	41.0%	0.0%	0.0%
Oxygen Supplies/Equipment	80.9%	78.7% - 83.1%	0.3%	97.6%	1.6%	0.2%	0.2%
Glucose Monitor	80.7%	78.0% - 83.4%	0.4%	93.5%	5.5%	0.1%	0.6%
Diabetic Shoes	74.3%	65.9% - 82.7%	1.0%	97.4%	1.3%	0.0%	0.3%
Wheelchairs Options/Accessories	74.3%	61.3% - 87.3%	1.7%	88.8%	9.3%	0.1%	0.1%
Lower Limb Prostheses	72.3%	60.1% - 84.4%	0.0%	99.3%	0.7%	0.0%	0.0%
Parenteral Nutrition	67.9%	48.8% - 87.0%	0.0%	99.5%	0.0%	0.5%	0.0%
Respiratory Assist Device	67.1%	56.1% - 78.1%	0.0%	95.7%	4.3%	0.0%	0.0%
Surgical Dressings	63.2%	46.6% - 79.9%	0.0%	98.5%	0.9%	0.6%	0.0%
Enteral Nutrition	57.3%	47.2% - 67.4%	0.0%	98.9%	0.8%	0.4%	0.0%
CPAP	56.0%	49.4% - 62.7%	0.5%	98.2%	1.3%	0.0%	0.0%
Negative Pressure Wound Therapy	55.1%	35.2% - 75.0%	2.6%	97.4%	0.0%	0.0%	0.0%
All Other Codes	53.9%	46.1% - 61.7%	1.4%	91.7%	2.0%	0.1%	4.9%
Immunosuppressive Drugs	50.4%	37.2% - 63.7%	0.0%	99.4%	0.0%	0.4%	0.2%
Nebulizers & Related Drugs	46.7%	28.2% - 65.3%	0.3%	99.3%	0.2%	0.2%	0.1%
Infusion Pumps & Related Drugs	45.3%	19.9% - 70.6%	0.0%	93.0%	3.8%	0.0%	3.2%
Lower Limb Orthoses	42.1%	26.3% - 57.9%	0.5%	91.8%	5.4%	1.7%	0.6%
Ostomy Supplies	41.4%	30.6% - 52.3%	0.5%	99.5%	0.0%	0.0%	0.0%
All Types of Services	66.0%	62.8% - 69.2%	0.5%	94.2%	4.2%	0.2%	0.8%

**Table C3: Top 20 Service Type Improper Payment Rates: Part A Excluding Inpatient Hospital PPS**

Service Type Billed to Part A excluding Inpatient Hospital PPS (Type of Bill)	Improper Payment Rate	95% Confidence Interval	Type of Error				
			No Doc	Insufficient Doc	Medical Necessity	Incorrect Coding	Other
Hospital Other Part B	37.2%	32.3% - 42.2%	0.0%	95.4%	3.7%	0.9%	0.0%
Clinic – Freestanding (Effective April 1, 2010)	28.2%	( 1.3%) - 57.7%	0.0%	100.0%	0.0%	0.0%	0.0%
SNF Outpatient	17.3%	12.4% - 22.1%	0.0%	100.0%	0.0%	0.0%	0.0%
Hospital Inpatient Part B	11.3%	3.2% - 19.3%	0.0%	99.7%	0.0%	0.3%	0.0%
Hospital Based Hospice	10.8%	( 2.6%) - 24.1%	0.0%	17.5%	80.2%	2.3%	0.0%
Critical Access Hospital	10.0%	7.0% - 13.0%	0.0%	92.3%	2.4%	5.3%	0.0%
Clinic Opt	6.8%	5.6% - 7.9%	0.0%	95.9%	0.0%	4.1%	0.0%
Home Health	6.1%	4.7% - 7.6%	1.7%	45.9%	44.3%	8.1%	0.0%
Clinic ESRD	5.3%	3.5% - 7.1%	0.1%	98.9%	0.0%	1.0%	0.0%
Hospital Inpatient (Part A)	5.3%	1.7% - 8.9%	0.0%	85.4%	14.6%	0.0%	0.0%
Clinical Rural Health	5.1%	2.5% - 7.6%	11.6%	88.4%	0.0%	0.0%	0.0%
SNF Inpatient	4.8%	3.3% - 6.2%	0.0%	60.3%	5.7%	22.4%	11.6%
Hospital Outpatient	4.2%	3.0% - 5.3%	6.7%	80.0%	1.5%	11.5%	0.2%
SNF Inpatient Part B	3.8%	1.4% - 6.2%	0.7%	93.9%	0.0%	5.4%	0.0%
All Codes With Less Than 30 Claims	3.3%	(1.5%) - 8.0%	0.0%	99.0%	0.0%	1.0%	0.0%
Federally Qualified Health Centers (Effective April 1, 2010)	2.4%	(0.8%) - 5.5%	0.0%	100.0%	0.0%	0.0%	0.0%
Nonhospital Based Hospice	1.0%	0.1% - 1.9%	0.0%	36.8%	49.0%	14.2%	0.0%
All Types of Services	4.8%	4.2% - 5.5%	2.2%	70.8%	14.0%	10.4%	2.7%

**Table C4: Top 20 Service Type Improper Payment Rates: Part A Inpatient Hospital PPS**

Service Types for Which Part A Inpatient Hospital PPS are Responsible (MS-DRG Groups)	Improper Payment Rate	95% Confidence Interval	Type of Error				
			No Doc	Insufficient Doc	Medical Necessity	Incorrect Coding	Other
Uterine & Adnexa Proc For Non-Malignancy (742 , 743)	57.9%	52.7% - 63.1%	0.0%	0.0%	98.3%	1.7%	0.0%
Chest Pain (313)	47.7%	35.8% - 59.5%	13.3%	0.0%	86.7%	0.0%	0.0%
Cardiac Defibrillator Implant W/O Cardiac Cath (226 , 227)	36.3%	29.8% - 42.7%	0.0%	13.1%	79.5%	7.0%	0.3%
Permanent Cardiac Pacemaker Implant (242 , 243 , 244)	33.9%	23.0% - 44.9%	0.0%	1.2%	98.4%	0.4%	0.0%
Syncope & Collapse (312)	28.7%	18.8% - 38.7%	0.0%	14.7%	82.8%	2.5%	0.0%
Nutritional & Misc Metabolic Disorders (640 , 641)	23.1%	14.3% - 31.9%	0.0%	0.0%	91.3%	8.7%	0.0%
Other Circulatory System Diagnoses (314 , 315 , 316)	19.6%	8.5% - 30.8%	0.0%	16.4%	80.7%	2.9%	0.0%
Esophagitis, Gastroent & Misc Digest Disorders (391 , 392)	18.1%	9.9% - 26.4%	0.0%	26.3%	72.9%	0.8%	0.0%
Other Vascular Procedures (252 , 253 , 254)	17.8%	13.4% - 22.1%	0.0%	3.0%	95.2%	1.8%	0.0%
Kidney & Urinary Tract Infections (689 , 690)	15.8%	4.2% - 27.4%	17.1%	32.8%	44.2%	5.9%	0.0%
Chronic Obstructive Pulmonary Disease (190 , 191 , 192)	14.4%	8.3% - 20.6%	0.0%	0.0%	95.9%	4.1%	0.0%
Perc Cardiovasc Proc W Drug-Eluting Stent (246 , 247)	13.9%	9.6% - 18.2%	0.0%	45.8%	52.1%	2.1%	0.0%
Circulatory Disorders Except Ami, W Card Cath (286 , 287)	13.8%	7.4% - 20.1%	0.0%	19.5%	80.5%	0.0%	0.0%
Major Joint Replacement Or Reattachment Of Lower Extremity (469 , 470)	13.2%	8.3% - 18.1%	1.0%	18.4%	80.4%	0.3%	0.0%
Spinal Fusion Except Cervical (459 , 460)	12.7%	6.3% - 19.1%	0.0%	3.0%	96.5%	0.5%	0.1%
Extensive O.R. Procedure Unrelated To Principal Diagnosis (981 , 982 , 983)	11.1%	7.0% - 15.2%	0.0%	0.0%	62.1%	37.9%	0.0%
Renal Failure (682 , 683 , 684)	10.6%	4.5% - 16.7%	19.9%	1.8%	45.0%	33.3%	0.0%
G.I. Hemorrhage (377 , 378 , 379)	10.4%	6.6% - 14.2%	0.0%	1.6%	72.5%	25.9%	0.0%
Heart Failure & Shock (291 , 292 , 293)	8.4%	4.7% - 12.1%	0.0%	15.6%	60.8%	23.6%	0.0%
Psychoses (885)	7.1%	4.4% - 9.9%	0.0%	67.5%	32.5%	0.0%	0.0%
All Other Codes	6.6%	5.6% - 7.6%	0.0%	11.6%	70.1%	17.5%	0.9%
All Types of Services	9.3%	8.3% - 10.4%	1.2%	12.3%	73.8%	12.3%	0.4%

# Appendix D: Projected Improper Payments by Type of Service for Each Type of Error

Appendix D tables are sorted in descending order by projected improper payments. Some columns and/or rows may not sum correctly due to rounding.

**Table D1: Top 20 Types of Services with No Documentation Errors**

Part B (BETOS), DMEs (HCPCS), Part A excluding Inpatient Hospital PPS (Type of Bill), and Inpatient Hospital PPS (MS-DRG Groups)	No Documentation Errors			
	Improper Payment Rate	Projected Improper Payments	Improper Payment Rate	Percent of Overall Projected Improper Payment
Minor procedures - other (Medicare fee schedule)	3.8%	\$129,307,939	2.9% - 4.7%	0.4%
Hospital Outpatient	0.3%	\$118,351,202	(0.1%) - 0.6%	0.4%
Ambulance	1.3%	\$71,961,268	(0.4%) - 3.0%	0.2%
Renal Failure (682 , 683 , 684)	2.1%	\$49,565,513	(2.0%) - 6.2%	0.2%
Kidney & Urinary Tract Infections (689 , 690)	2.7%	\$44,509,801	(2.5%) - 7.9%	0.1%
Hospital visit - subsequent	0.7%	\$40,606,165	0.3% - 1.1%	0.1%
Office visits - established	0.2%	\$33,915,375	0.0% - 0.5%	0.1%
Chest Pain (313)	6.3%	\$29,360,827	(5.4%) - 18.0%	0.1%
Dialysis services (Medicare Fee Schedule)	2.7%	\$24,102,719	2.2% - 3.1%	0.1%
Oncology - radiation therapy	1.8%	\$23,161,214	1.3% - 2.2%	0.1%
Home Health	0.1%	\$20,127,060	(0.1%) - 0.3%	0.1%
Hospital visit - initial	0.6%	\$17,239,034	0.1% - 1.1%	0.1%
Nursing home visit	0.9%	\$15,716,247	0.0% - 1.8%	0.0%
Lab tests - other (non-Medicare fee schedule)	0.6%	\$15,315,570	(0.3%) - 1.5%	0.0%
Ambulatory procedures - skin	0.7%	\$13,008,732	0.4% - 1.0%	0.0%
Office visits - new	0.4%	\$11,842,082	(0.4%) - 1.3%	0.0%
Major Joint Replacement Or Reattachment Of Lower Extremity (469 , 470)	0.1%	\$6,915,265	(0.1%) - 0.4%	0.0%
Other - Medicare fee schedule	2.7%	\$6,685,080	(1.3%) - 6.7%	0.0%
Clinical Rural Health	0.6%	\$5,503,398	(0.6%) - 1.7%	0.0%
Oxygen Supplies/Equipment	0.3%	\$4,726,712	0.0% - 0.5%	0.0%
All Other Codes	0.0%	\$54,556,245	0.0% - 0.0%	0.2%
Overall	0.2%	\$736,477,447	0.1% - 0.3%	2.3%

**Table D2: Top 20 Types of Services with Insufficient Documentation Errors**

Part B (BETOS), DMEs (HCPCS), Part A excluding Inpatient Hospital PPS (Type of Bill), and Inpatient Hospital PPS (MS-DRG Groups)	Insufficient Documentation Errors			
	Improper Payment Rate	Projected Improper Payments	Improper Payment Rate	Percent of Overall Projected Improper Payment
Hospital Outpatient	3.3%	\$1,406,801,346	2.5% - 4.2%	4.3%
Oxygen Supplies/Equipment	78.9%	\$1,377,126,030	76.6% - 81.2%	4.2%
Glucose Monitor	75.5%	\$1,010,132,863	72.5% - 78.4%	3.1%
SNF Inpatient	2.9%	\$902,464,825	1.7% - 4.1%	2.8%
Office visits - established	4.1%	\$576,580,188	3.2% - 5.1%	1.8%
Lab tests - other (non-Medicare fee schedule)	20.5%	\$546,192,105	16.9% - 24.0%	1.7%
Home Health	2.8%	\$544,284,971	1.6% - 4.0%	1.7%
Clinic ESRD	5.2%	\$517,625,483	3.5% - 7.0%	1.6%
Minor procedures - other (Medicare fee schedule)	14.7%	\$503,226,483	11.6% - 17.7%	1.6%
Nebulizers & Related Drugs	46.4%	\$442,659,866	27.9% - 64.9%	1.4%
Hospital Inpatient (Part A)	4.5%	\$436,301,569	1.2% - 7.8%	1.3%
Hospital visit - subsequent	7.3%	\$424,429,348	5.8% - 8.8%	1.3%
CPAP	55.0%	\$349,729,075	48.4% - 61.7%	1.1%
Critical Access Hospital	9.2%	\$330,588,325	6.4% - 12.1%	1.0%
Oncology - radiation therapy	17.9%	\$235,048,346	(2.0%) - 37.8%	0.7%
Lower Limb Prostheses	71.8%	\$231,197,276	59.6% - 83.9%	0.7%
Enteral Nutrition	56.7%	\$230,524,531	46.6% - 66.7%	0.7%
Hospital visit - initial	7.6%	\$221,001,459	5.2% - 10.0%	0.7%
Chiropractic	36.1%	\$211,547,557	31.6% - 40.6%	0.7%
Lab tests - other (Medicare fee schedule)	8.9%	\$203,082,609	(0.7%) - 18.5%	0.6%
All Other Codes	3.5%	\$6,814,583,416	3.1% - 3.9%	21.0%
Overall	5.0%	\$17,515,127,673	4.6% - 5.4%	54.0%



**Table D3: Top 20 Types of Services with Medical Necessity Errors**

Part B (BETOS), DMEs (HCPCS), Part A excluding Inpatient Hospital PPS (Type of Bill), and Inpatient Hospital PPS (MS-DRG Groups)	Medical Necessity Errors			
	Improper Payment Rate	Projected Improper Payments	Improper Payment Rate	Percent of Overall Projected Improper Payment
Major Joint Replacement Or Reattachment Of Lower Extremity (469 , 470)	10.6%	\$571,711,335	5.8% - 15.5%	1.8%
Home Health	2.7%	\$525,737,640	1.9% - 3.6%	1.6%
Permanent Cardiac Pacemaker Implant (242 , 243 , 244)	33.4%	\$481,446,993	22.4% - 44.4%	1.5%
Chronic Obstructive Pulmonary Disease (190 , 191 , 192)	13.8%	\$425,086,148	7.7% - 20.0%	1.3%
Other Vascular Procedures (252 , 253 , 254)	16.9%	\$264,690,685	12.8% - 21.0%	0.8%
Spinal Fusion Except Cervical (459 , 460)	12.2%	\$207,991,343	5.8% - 18.7%	0.6%
Nutritional & Misc Metabolic Disorders (640 , 641)	21.1%	\$204,620,919	12.9% - 29.3%	0.6%
Heart Failure & Shock (291 , 292 , 293)	5.1%	\$201,285,778	3.0% - 7.2%	0.6%
Chest Pain (313)	41.3%	\$191,981,614	29.7% - 53.0%	0.6%
Syncope & Collapse (312)	23.8%	\$190,705,513	14.1% - 33.5%	0.6%
Cardiac Defibrillator Implant W/O Cardiac Cath (226 , 227)	28.8%	\$181,863,349	22.3% - 35.3%	0.6%
Other Circulatory System Diagnoses (314 , 315 , 316)	15.9%	\$160,476,519	4.6% - 27.1%	0.5%
Esophagitis, Gastroent & Misc Digest Disorders (391 , 392)	13.2%	\$158,755,189	5.5% - 20.9%	0.5%
G.I. Hemorrhage (377 , 378 , 379)	7.6%	\$157,359,563	5.6% - 9.5%	0.5%
Hospital Based Hospice	8.6%	\$139,074,254	(4.7%) - 21.9%	0.4%
Extensive O.R. Procedure Unrelated To Principal Diagnosis (981 , 982 , 983)	6.9%	\$135,268,061	4.4% - 9.4%	0.4%
Uterine & Adnexa Proc For Non-Malignancy (742 , 743)	56.9%	\$132,357,968	51.8% - 62.1%	0.4%
Wheelchairs Motorized	34.7%	\$122,099,776	18.8% - 50.6%	0.4%
Perc Cardiovasc Proc W Drug-Eluting Stent (246 , 247)	7.2%	\$119,502,814	3.4% - 11.1%	0.4%
Circulatory Disorders Except Ami, W Card Cath (286 , 287)	11.1%	\$117,742,618	4.8% - 17.3%	0.4%
All Other Codes	1.5%	\$4,557,674,515	1.3% - 1.8%	14.0%
Overall	2.6%	\$9,247,432,593	2.3% - 3.0%	28.5%

**Table D4: Top 20 Types of Services with Incorrect Coding Errors**

Part B (BETOS), DMEs (HCPCS), Part A excluding Inpatient Hospital PPS (Type of Bill), and Inpatient Hospital PPS (MS-DRG Groups)	Incorrect Coding Errors			
	Improper Payment Rate	Projected Improper Payments	Improper Payment Rate	Percent of Overall Projected Improper Payment
Office visits - established	4.9%	\$683,621,985	4.3% - 5.5%	2.1%
Hospital visit - initial	18.6%	\$540,684,267	16.8% - 20.4%	1.7%
Hospital visit - subsequent	7.9%	\$458,442,355	6.9% - 8.9%	1.4%
Office visits - new	16.9%	\$451,183,889	14.4% - 19.3%	1.4%
SNF Inpatient	1.1%	\$335,676,173	0.6% - 1.6%	1.0%
Hospital Outpatient	0.5%	\$202,611,469	(0.2%) - 1.1%	0.6%
Nursing home visit	9.6%	\$164,862,730	7.6% - 11.6%	0.5%
Emergency room visit	7.8%	\$157,783,529	6.1% - 9.6%	0.5%
Home Health	0.5%	\$96,433,353	0.3% - 0.7%	0.3%
Renal Failure (682 , 683 , 684)	3.5%	\$82,687,199	1.3% - 5.8%	0.3%
Extensive O.R. Procedure Unrelated To Principal Diagnosis (981 , 982 , 983)	4.2%	\$82,381,074	2.3% - 6.1%	0.3%
Heart Failure & Shock (291 , 292 , 293)	2.0%	\$78,305,760	0.1% - 3.9%	0.2%
Hospital visit - critical care	7.1%	\$63,877,164	2.6% - 11.6%	0.2%
Septicemia Or Severe Sepsis W/O Mv 96+ Hours (871 , 872)	1.2%	\$59,709,105	(0.3%) - 2.7%	0.2%
Simple Pneumonia & Pleurisy (193 , 194 , 195)	1.8%	\$58,825,336	0.1% - 3.4%	0.2%
G.I. Hemorrhage (377 , 378 , 379)	2.7%	\$56,218,265	(1.0%) - 6.4%	0.2%
Disorders Of Pancreas Except Malignancy (438 , 439 , 440)	9.4%	\$45,624,790	6.9% - 11.9%	0.1%
Medical Back Problems (551 , 552)	8.6%	\$36,990,385	7.3% - 9.8%	0.1%
Minor procedures - other (Medicare fee schedule)	1.0%	\$35,882,840	0.8% - 1.3%	0.1%
Cervical Spinal Fusion (471 , 472 , 473)	5.2%	\$31,724,936	4.7% - 5.6%	0.1%
All Other Codes	0.5%	\$937,584,219	0.3% - 0.6%	2.9%
Overall	1.3%	\$4,661,110,821	1.2% - 1.5%	14.4%

**Table D5: Top 20 Types of Services with Downcoding Errors**

Downcoding refers to billing a lower level service or a service with a lower payment than is supported by the medical record documentation.

Part B (BETOS), DMEs (HCPCS), Part A excluding Inpatient Hospital PPS (Type of Bill), and Inpatient Hospital PPS (MS-DRG Groups)	Downcoding Errors			
	Improper Payment Rate	Projected Improper Payments	Improper Payment Rate	Percent of Overall Projected Improper Payment
Office visits - established	0.7%	\$95,118,993	0.4% - 1.0%	0.3%
Extensive O.R. Procedure Unrelated To Principal Diagnosis (981 , 982 , 983)	3.5%	\$68,639,279	2.2% - 4.8%	0.2%
Heart Failure & Shock (291 , 292 , 293)	1.5%	\$59,292,529	(0.3%) - 3.3%	0.2%
Renal Failure (682 , 683 , 684)	1.9%	\$45,356,928	(0.2%) - 4.0%	0.1%
Medical Back Problems (551 , 552)	8.6%	\$36,990,385	7.3% - 9.8%	0.1%
Simple Pneumonia & Pleurisy (193 , 194 , 195)	1.1%	\$36,345,606	(0.4%) - 2.6%	0.1%
Septicemia Or Severe Sepsis W/O Mv 96+ Hours (871 , 872)	0.7%	\$35,204,725	(0.7%) - 2.1%	0.1%
Hospital Outpatient	0.1%	\$33,051,145	(0.0%) - 0.2%	0.1%
Cervical Spinal Fusion (471 , 472 , 473)	5.2%	\$31,724,936	4.7% - 5.6%	0.1%
SNF Inpatient	0.1%	\$30,037,636	0.0% - 0.2%	0.1%
G.I. Obstruction (388 , 389 , 390)	4.4%	\$29,896,104	3.5% - 5.3%	0.1%
Nutritional & Misc Metabolic Disorders (640 , 641)	2.0%	\$19,135,195	(1.8%) - 5.8%	0.1%
Hospital visit - subsequent	0.3%	\$18,782,150	0.0% - 0.6%	0.1%
Chronic Obstructive Pulmonary Disease (190 , 191 , 192)	0.6%	\$17,549,683	(0.1%) - 1.2%	0.1%
Critical Access Hospital	0.5%	\$17,045,436	(0.2%) - 1.1%	0.1%
Home Health	0.1%	\$16,577,681	0.0% - 0.1%	0.1%
Major Male Pelvic Procedures (707 , 708)	6.4%	\$15,663,674	5.9% - 7.0%	0.0%
Kidney & Urinary Tract Infections (689 , 690)	0.9%	\$15,497,663	0.6% - 1.3%	0.0%
Cardiac Arrhythmia & Conduction Disorders (308 , 309 , 310)	1.0%	\$14,225,044	0.0% - 2.0%	0.0%
Transurethral Prostatectomy (713 , 714)	10.2%	\$12,749,570	9.2% - 11.2%	0.0%
All Other Codes	0.2%	\$331,781,173	0.1% - 0.3%	1.0%
Overall	0.3%	\$980,665,536	0.2% - 0.4%	3.0%

**Table D6: Top 20 Types of Services with Other Errors**

Part B (BETOS), DME (HCPCS), Part A Excluding Inpatient Hospital PPS (Type of Bill), and Inpatient Hospital PPS (MS-DRG Groups)	Other Errors			
	Improper Payment Rate	Projected Improper Payments	Improper Payment Rate	Percent of Overall Projected Improper Payment
SNF Inpatient	0.6%	\$173,172,687	(0.0%) - 1.1%	0.5%
Office visits - established	0.0%	\$6,366,699	0.0% - 0.1%	0.0%
Glucose Monitor	0.5%	\$6,202,681	0.0% - 0.9%	0.0%
Minor procedures - other (Medicare fee schedule)	0.1%	\$3,546,691	(0.1%) - 0.3%	0.0%
Hospital visit - initial	0.1%	\$3,484,001	(0.1%) - 0.4%	0.0%
Oxygen Supplies/Equipment	0.2%	\$3,427,941	(0.1%) - 0.5%	0.0%
Infusion Pumps & Related Drugs	1.4%	\$3,419,724	(1.4%) - 4.3%	0.0%
Hospital Outpatient	0.0%	\$3,410,382	(0.0%) - 0.0%	0.0%
Hospital visit - subsequent	0.1%	\$3,231,631	(0.1%) - 0.2%	0.0%
Specialist - psychiatry	0.2%	\$2,744,987	0.2% - 0.3%	0.0%
Septicemia Or Severe Sepsis W/O Mv 96+ Hours (871 , 872)	0.0%	\$2,389,184	(0.0%) - 0.1%	0.0%
Breast Prostheses	3.3%	\$1,697,821	(3.1%) - 9.8%	0.0%
Medical Back Problems (551 , 552)	0.4%	\$1,668,322	0.3% - 0.4%	0.0%
Lab tests - other (non-Medicare fee schedule)	0.1%	\$1,486,111	0.0% - 0.1%	0.0%
LSO	1.4%	\$1,368,547	(1.3%) - 4.1%	0.0%
Other drugs	0.0%	\$1,000,832	(0.0%) - 0.1%	0.0%
Perc Cardiovasc Proc W Non-Drug-Eluting Stent (248 , 249)	0.1%	\$806,219	0.1% - 0.2%	0.0%
Echography/ultrasonography - heart	0.1%	\$783,873	(0.1%) - 0.3%	0.0%
Cardiac Defibrillator Implant W/O Cardiac Cath (226 , 227)	0.1%	\$779,361	(0.1%) - 0.4%	0.0%
Emergency room visit	0.0%	\$742,182	(0.0%) - 0.1%	0.0%
All Other Codes	0.0%	\$76,349,081	(0.0%) - 0.1%	0.2%
Overall	0.1%	\$298,078,956	0.0% - 0.1%	0.9%

# Appendix E: Projected Improper Payments by Type of Service for Claim Type

This series of tables is sorted in descending order by projected improper payments. All estimates in this table are based on a minimum of 30 lines in the sample. Some columns and/or rows may not sum correctly due to rounding.

**Table E1: Improper Payment Rates by Service Type: Part B**

Service Types Billed to Part B (BETOS)	Improper Payment Rate				
	Improper Payment Rate	Number of Line Items (Sample)	Projected Improper Payments	Standard Error	95% Confidence Interval
Office visits - established	9.3%	2,887	\$1,301,792,174	0.6%	8.2% - 10.4%
Hospital visit - subsequent	16.0%	1,714	\$927,123,400	0.9%	14.2% - 17.7%
Hospital visit - initial	26.9%	718	\$782,408,761	1.3%	24.3% - 29.5%
Minor procedures - other (Medicare fee schedule)	20.4%	1,311	\$700,731,052	1.6%	17.3% - 23.6%
Lab tests - other (non-Medicare fee schedule)	21.4%	1,284	\$569,152,817	1.9%	17.7% - 25.0%
Office visits - new	18.6%	443	\$496,218,893	1.4%	15.8% - 21.3%
Nursing home visit	16.9%	496	\$290,014,006	1.5%	13.9% - 19.9%
Chiropractic	47.4%	518	\$277,795,837	2.6%	42.4% - 52.5%
Oncology - radiation therapy	19.7%	174	\$259,226,130	9.9%	0.3% - 39.2%
Hospital visit - critical care	26.3%	185	\$236,000,814	3.6%	19.3% - 33.3%
Ambulance	4.2%	475	\$229,988,699	1.1%	1.9% - 6.4%
Lab tests - other (Medicare fee schedule)	9.0%	263	\$205,591,359	4.9%	(0.6%) - 18.6%
Specialist - psychiatry	16.4%	339	\$193,152,827	2.3%	11.9% - 20.9%
Other drugs	4.1%	723	\$187,824,361	1.8%	0.6% - 7.6%
Emergency room visit	9.3%	423	\$186,665,449	1.1%	7.2% - 11.4%
Advanced imaging - MRI/MRA: other	10.8%	200	\$172,189,911	3.6%	3.7% - 17.9%
Other tests - other	9.8%	235	\$135,681,671	2.4%	5.1% - 14.4%
Ambulatory procedures - skin	6.5%	273	\$125,204,340	2.5%	1.6% - 11.3%
All Codes With Less Than 30 Claims	3.9%	167	\$122,835,843	1.4%	1.2% - 6.6%
Dialysis services (Medicare Fee Schedule)	13.3%	102	\$120,048,475	3.6%	6.3% - 20.3%
Lab tests - blood counts	23.2%	379	\$79,038,200	2.1%	19.1% - 27.4%
Echography/ultrasonography - heart	8.9%	284	\$75,359,534	1.6%	5.7% - 12.1%
Lab tests - automated general profiles	18.9%	447	\$74,233,708	2.0%	15.1% - 22.8%
Standard imaging - musculoskeletal	10.2%	384	\$70,066,246	1.5%	7.2% - 13.2%
Standard imaging - chest	15.6%	437	\$67,782,294	1.9%	11.9% - 19.3%
Advanced imaging - CAT/CT/CTA: other	7.6%	226	\$65,852,198	2.0%	3.6% - 11.5%
Other tests - electrocardiograms	16.3%	519	\$65,658,844	1.8%	12.8% - 19.8%
Ambulatory procedures - other	9.6%	206	\$65,328,613	6.8%	(3.8%) - 22.9%
Anesthesia	3.3%	209	\$64,884,021	1.2%	1.0% - 5.7%
Specialist - ophthalmology	2.2%	428	\$56,085,852	0.5%	1.3% - 3.1%
Minor procedures - skin	4.4%	291	\$50,528,832	1.5%	1.5% - 7.4%
Eye procedure - cataract removal/lens insertion	2.3%	129	\$49,688,450	1.3%	(0.3%) - 4.8%
Echography/ultrasonography - carotid arteries	16.2%	79	\$47,551,514	2.4%	11.6% - 20.9%

Service Types Billed to Part B (BETOS)	Improper Payment Rate				
	Improper Payment Rate	Number of Line Items (Sample)	Projected Improper Payments	Standard Error	95% Confidence Interval
Other - Medicare fee schedule	19.0%	106	\$46,250,187	5.2%	8.8% - 29.2%
Standard imaging - nuclear medicine	3.1%	211	\$39,965,522	0.9%	1.4% - 4.9%
Echography/ultrasonography - other	6.1%	143	\$33,491,252	1.1%	4.0% - 8.2%
Minor procedures - musculoskeletal	3.6%	262	\$31,985,052	0.7%	2.3% - 5.0%
Lab tests - routine venipuncture (non-Medicare fee schedule)	19.3%	666	\$30,225,941	1.8%	15.9% - 22.8%
Standard imaging - other	5.8%	112	\$28,368,036	1.4%	3.1% - 8.5%
Advanced imaging - MRI/MRA: brain/head/neck	6.8%	75	\$25,335,059	1.6%	3.5% - 10.0%
No Service Code	3.6%	213	\$23,367,957	1.9%	(0.0%) - 7.2%
Major procedure, cardiovascular-Other	1.7%	45	\$21,117,115	0.0%	1.6% - 1.7%
Endoscopy - upper gastrointestinal	3.6%	86	\$19,508,942	0.9%	1.9% - 5.3%
Imaging/procedure - other	8.7%	154	\$18,107,109	1.8%	5.3% - 12.2%
Echography/ultrasonography - abdomen/pelvis	4.9%	109	\$16,447,673	1.4%	2.3% - 7.6%
Chemotherapy	0.8%	108	\$16,385,141	0.3%	0.2% - 1.5%
Specialist - other	7.2%	631	\$15,472,646	1.7%	4.0% - 10.5%
Lab tests - urinalysis	20.5%	283	\$14,406,009	1.8%	16.9% - 24.1%
Endoscopy - colonoscopy	1.8%	191	\$13,647,673	0.8%	0.2% - 3.3%
Advanced imaging - CAT/CT/CTA: brain/head/neck	4.1%	97	\$12,192,140	1.1%	1.9% - 6.3%
Major procedure, orthopedic - Knee replacement	5.3%	58	\$11,608,318	0.6%	4.1% - 6.6%
Lab tests - bacterial cultures	8.9%	96	\$11,464,824	2.1%	4.7% - 13.0%
Other - non-Medicare fee schedule	26.7%	64	\$11,079,321	10.8%	5.5% - 47.9%
Other tests - EKG monitoring	4.3%	44	\$10,626,313	0.3%	3.8% - 4.9%
Major procedure - Other	0.6%	44	\$9,135,476	0.1%	0.4% - 0.7%
Oncology - other	2.8%	140	\$8,773,528	1.0%	0.8% - 4.7%
Immunizations/Vaccinations	1.9%	244	\$8,450,081	0.4%	1.2% - 2.7%
Home visit	3.9%	29	\$8,279,856	1.7%	0.6% - 7.2%
Major procedure, cardiovascular-Coronary angioplasty (PTCA)	2.4%	55	\$6,463,618	1.1%	0.3% - 4.5%
Standard imaging - breast	1.6%	97	\$5,637,552	0.2%	1.3% - 2.0%
Eye procedure - other	0.8%	196	\$5,094,271	0.4%	0.0% - 1.5%
Other tests - cardiovascular stress tests	3.2%	129	\$5,065,784	0.9%	1.5% - 4.9%
Lab tests - glucose	17.9%	85	\$3,917,137	1.2%	15.5% - 20.3%
Ambulatory procedures - musculoskeletal	0.0%	20	N/A	N/A	N/A
Echography/ultrasonography - eye	0.0%	24	N/A	N/A	N/A
Endoscopy - cystoscopy	0.0%	64	N/A	N/A	N/A
Imaging/procedure - heart including cardiac catheter	0.0%	14	N/A	N/A	N/A
Undefined codes	N/A	467	N/A	N/A	N/A
All Type of Services (Incl. Codes Not Listed)	9.9%	15,238	\$8,863,574,658	0.4%	9.1% - 10.8%

**Table E2: Improper Payment Rates by Service Type: DME**

Service Types Billed to DMEs	Improper Payment Rate				
	Improper Payment Rate	Number of Line Items (Sample)	Projected Improper Payments	Standard Error	95% Confidence Interval
Oxygen Supplies/Equipment	80.9%	1,652	\$1,411,500,893	1.1%	78.7% - 83.1%
Glucose Monitor	80.7%	1,575	\$1,080,347,544	1.4%	78.0% - 83.4%
Nebulizers & Related Drugs	46.7%	905	\$445,927,357	9.5%	28.2% - 65.3%
CPAP	56.0%	631	\$356,089,124	3.4%	49.4% - 62.7%
Wheelchairs Motorized	84.6%	1,461	\$297,541,969	6.2%	72.5% - 96.7%
All Codes With Less Than 30 Claims	58.4%	248	\$256,196,260	10.1%	38.5% - 78.3%
Enteral Nutrition	57.3%	192	\$233,123,575	5.2%	47.2% - 67.4%
Lower Limb Prostheses	72.3%	251	\$232,757,587	6.2%	60.1% - 84.4%
Immunosuppressive Drugs	50.4%	126	\$193,330,847	6.7%	37.2% - 63.7%
Wheelchairs Manual	88.4%	393	\$180,883,940	2.1%	84.2% - 92.6%
Hospital Beds/Accessories	87.8%	374	\$177,276,317	2.2%	83.5% - 92.1%
Diabetic Shoes	74.3%	134	\$174,540,380	4.3%	65.9% - 82.7%
Wheelchairs Options/Accessories	74.3%	965	\$153,886,907	6.6%	61.3% - 87.3%
Parenteral Nutrition	67.9%	78	\$135,623,881	9.8%	48.8% - 87.0%
Lower Limb Orthoses	42.1%	164	\$114,233,496	8.1%	26.3% - 57.9%
Infusion Pumps & Related Drugs	45.3%	161	\$108,370,786	12.9%	19.9% - 70.6%
Negative Pressure Wound Therapy	55.1%	43	\$92,772,963	10.2%	35.2% - 75.0%
Surgical Dressings	63.2%	126	\$92,272,310	8.5%	46.6% - 79.9%
Ostomy Supplies	41.4%	199	\$86,171,606	5.5%	30.6% - 52.3%
Respiratory Assist Device	67.1%	97	\$85,118,486	5.6%	56.1% - 78.1%
Support Surfaces	89.8%	489	\$62,161,492	2.6%	84.7% - 95.0%
LSO	61.8%	70	\$61,598,821	6.4%	49.4% - 74.3%
Urological Supplies	44.0%	128	\$58,385,520	9.9%	24.5% - 63.5%
TENS	76.5%	100	\$58,121,137	5.7%	65.3% - 87.6%
Walkers	64.7%	108	\$56,819,240	5.5%	53.9% - 75.4%
Commodos/Bed Pans/Urinals	87.3%	71	\$33,131,227	3.9%	79.7% - 94.8%
Wheelchairs Seating	77.4%	200	\$29,554,902	5.6%	66.4% - 88.4%
Patient Lift	79.0%	50	\$26,883,985	6.6%	66.1% - 91.9%
Breast Prostheses	37.6%	40	\$19,186,923	8.7%	20.6% - 54.6%
_Misc DMEPOS_	98.1%	23	\$18,097,590	1.9%	94.3% - 101.9%
Lenses	23.1%	77	\$14,563,272	5.5%	12.4% - 33.8%
Upper Limb Orthoses	29.5%	54	\$14,517,273	8.6%	12.7% - 46.3%
Osteogenesis Stimulator	25.0%	47	\$10,852,262	7.1%	11.1% - 39.0%
Suction Pump	52.5%	61	\$7,578,512	10.1%	32.6% - 72.3%
Repairs/DME	78.1%	62	\$7,354,993	9.2%	60.0% - 96.2%
Ventilators	32.2%	48	\$6,683,013	7.7%	17.1% - 47.2%
Tracheostomy Supplies	32.1%	21	\$6,637,409	11.0%	10.5% - 53.6%
HFCWO Device	27.2%	26	\$3,891,552	7.1%	13.4% - 41.1%
Canes/Crutches	57.1%	30	\$3,708,368	9.4%	38.7% - 75.6%
Speech Generating Devices	40.1%	19	\$3,227,576	11.1%	18.4% - 61.8%

Service Types Billed to DMEs	Improper Payment Rate				
	Improper Payment Rate	Number of Line Items (Sample)	Projected Improper Payments	Standard Error	95% Confidence Interval
Automatic External Defibrillator	6.3%	42	\$2,084,682	3.0%	0.4% - 12.2%
_Misc Drugs_	N/A	25	N/A	N/A	N/A
_Routinely Denied Items_	N/A	74	N/A	N/A	N/A
All Type of Services (Incl. Codes Not Listed)	66.0%	10,117	\$6,413,005,977	1.6%	62.8% - 69.2%

**Table E3: Improper Payment Rates by Service Type: Part A Excluding Inpatient Hospital PPS**

Service Types Billed to Part A excluding Inpatient Hospital PPS (Type of Bill)	Improper Payment Rate				
	Improper Payment Rate	Number of Line Items (Sample)	Projected Improper Payments	Standard Error	95% Confidence Interval
Hospital Outpatient	4.2%	2,106	\$1,757,835,549	0.6%	3.0% - 5.3%
SNF Inpatient	4.8%	1,022	\$1,497,222,348	0.7%	3.3% - 6.2%
Home Health	6.1%	1,507	\$1,186,583,023	0.8%	4.7% - 7.6%
Clinic ESRD	5.3%	437	\$523,361,086	0.9%	3.5% - 7.1%
Hospital Inpatient (Part A)	5.3%	226	\$510,700,575	1.8%	1.7% - 8.9%
Critical Access Hospital	10.0%	297	\$358,029,436	1.5%	7.0% - 13.0%
Hospital Other Part B	37.2%	164	\$191,892,507	2.5%	32.3% - 42.2%
Hospital Based Hospice	10.8%	87	\$173,368,799	6.8%	(2.6%) - 24.1%
Nonhospital Based Hospice	1.0%	373	\$124,462,640	0.5%	0.1% - 1.9%
SNF Inpatient Part B	3.8%	165	\$87,485,158	1.2%	1.4% - 6.2%
All Codes With Less Than 30 Claims	3.3%	61	\$79,081,364	2.4%	(1.5%) - 8.0%
Clinical Rural Health	5.1%	352	\$47,276,386	1.3%	2.5% - 7.6%
Hospital Inpatient Part B	11.3%	55	\$32,437,276	4.1%	3.2% - 19.3%
Clinic Opt	6.8%	44	\$30,320,418	0.6%	5.6% - 7.9%
SNF Outpatient	17.3%	31	\$27,542,250	2.5%	12.4% - 22.1%
Federally Qualified Health Centers (Effective April 1, 2010)	2.4%	138	\$12,623,991	1.6%	(0.8%) - 5.5%
Clinic – Freestanding (Effective April 1, 2010)	28.2%	16	\$6,853,123	15.0%	(1.3%) - 57.7%
All Type of Services (Incl. Codes Not Listed)	4.8%	7,081	\$6,647,075,928	0.3%	4.2% - 5.5%



**Table E4: Improper Payment Rates by Service Type: Part A Inpatient Hospital PPS**

PPS Acute Care Hospital Service Types Billed to Inpatient Hospital PPS (MS- DRG Groups)	Improper Payment Rate				
	Improper Payment Rate	Number of Line Items (Sample)	Projected Improper Payments	Standard Error	95% Confidence Interval
All Codes With Less Than 30 Claims	7.1%	696	\$2,307,605,787	1.0%	5.0% - 9.1%
Major Joint Replacement Or Reattachment Of Lower Extremity (469 , 470)	13.2%	461	\$711,178,020	2.5%	8.3% - 18.1%
Permanent Cardiac Pacemaker Implant (242 , 243 , 244)	33.9%	366	\$489,304,473	5.6%	23.0% - 44.9%
Chronic Obstructive Pulmonary Disease (190 , 191 , 192)	14.4%	152	\$443,134,295	3.2%	8.3% - 20.6%
Heart Failure & Shock (291 , 292 , 293)	8.4%	177	\$331,229,269	1.9%	4.7% - 12.1%
Other Vascular Procedures (252 , 253 , 254)	17.8%	154	\$278,113,467	2.2%	13.4% - 22.1%
Kidney & Urinary Tract Infections (689 , 690)	15.8%	93	\$260,516,230	5.9%	4.2% - 27.4%
Renal Failure (682 , 683 , 684)	10.6%	111	\$248,478,911	3.1%	4.5% - 16.7%
Syncope & Collapse (312)	28.7%	55	\$230,255,837	5.1%	18.8% - 38.7%
Perc Cardiovasc Proc W Drug-Eluting Stent (246 , 247)	13.9%	104	\$229,480,863	2.2%	9.6% - 18.2%
Cardiac Defibrillator Implant W/O Cardiac Cath (226 , 227)	36.3%	212	\$228,760,878	3.3%	29.8% - 42.7%
Nutritional & Misc Metabolic Disorders (640 , 641)	23.1%	72	\$224,025,239	4.5%	14.3% - 31.9%
Chest Pain (313)	47.7%	45	\$221,342,441	6.0%	35.8% - 59.5%
Esophagitis, Gastroent & Misc Digest Disorders (391 , 392)	18.1%	78	\$217,782,355	4.2%	9.9% - 26.4%
Extensive O.R. Procedure Unrelated To Principal Diagnosis (981 , 982 , 983)	11.1%	42	\$217,649,136	2.1%	7.0% - 15.2%
G.I. Hemorrhage (377 , 378 , 379)	10.4%	104	\$216,979,795	1.9%	6.6% - 14.2%
Spinal Fusion Except Cervical (459 , 460)	12.7%	262	\$215,603,671	3.3%	6.3% - 19.1%
Other Circulatory System Diagnoses (314 , 315 , 316)	19.6%	33	\$198,820,100	5.7%	8.5% - 30.8%
Psychoses (885)	7.1%	92	\$170,959,677	1.4%	4.4% - 9.9%
Circulatory Disorders Except Ami, W Card Cath (286 , 287)	13.8%	116	\$146,345,169	3.2%	7.4% - 20.1%
Uterine & Adnexa Proc For Non-Malignancy (742 , 743)	57.9%	29	\$134,596,458	2.6%	52.7% - 63.1%
Other Digestive System Diagnoses (393 , 394 , 395)	19.2%	50	\$123,257,283	4.4%	10.5% - 27.9%
Medical Back Problems (551 , 552)	27.9%	36	\$120,618,344	3.3%	21.6% - 34.3%
Signs & Symptoms (947 , 948)	29.9%	36	\$118,920,182	3.6%	22.7% - 37.0%
Back & Neck Proc Exc Spinal Fusion (490 , 491)	28.2%	90	\$109,750,443	4.7%	18.9% - 37.5%
Transurethral Prostatectomy (713 , 714)	87.5%	46	\$109,430,657	1.7%	84.2% - 90.8%
Lower Extrem & Humer Proc Except Hip, foot, femur (492 , 493 , 494)	19.6%	99	\$95,713,556	5.6%	8.6% - 30.6%
Cervical Spinal Fusion (471 , 472 , 473)	15.3%	37	\$93,699,595	1.4%	12.6% - 18.0%
Major Gastrointestinal Disorders & Peritoneal Infections (371 , 372 , 373)	13.6%	53	\$91,795,510	3.5%	6.8% - 20.5%
Transient Ischemia (069)	23.7%	41	\$90,570,703	6.3%	11.4% - 36.1%
Bone Diseases & Arthropathies (553 , 554)	44.9%	47	\$85,658,306	1.5%	41.9% - 48.0%
Septicemia Or Severe Sepsis W/O Mv 96+ Hours (871 , 872)	1.4%	178	\$70,011,217	0.8%	(0.1%) - 2.9%
G.I. Obstruction (388 , 389 , 390)	9.9%	55	\$66,980,777	1.2%	7.6% - 12.2%
Fx, Sprn, Strn & Disl Except Femur, Hip, Pelvis & Thigh (562 , 563)	72.0%	25	\$64,703,416	3.5%	65.1% - 78.9%
Disorders Of The Biliary Tract (444 , 445 , 446)	21.4%	39	\$64,268,173	2.7%	16.2% - 26.6%
Simple Pneumonia & Pleurisy (193 , 194 , 195)	1.9%	160	\$62,956,072	0.9%	0.2% - 3.6%

PPS Acute Care Hospital Service Types Billed to Inpatient Hospital PPS (MS- DRG Groups)	Improper Payment Rate				
	Improper Payment Rate	Number of Line Items (Sample)	Projected Improper Payments	Standard Error	95% Confidence Interval
Cardiac Arrhythmia & Conduction Disorders (308 , 309 , 310)	4.5%	98	\$62,554,409	1.3%	1.9% - 7.1%
Female Reproductive System Reconstructive Procedures (748)	43.4%	26	\$61,950,322	2.0%	39.6% - 47.3%
Perc Cardiovasc Proc W/O Coronary Artery Stent (250 , 251)	5.8%	121	\$60,454,290	1.2%	3.5% - 8.1%
Other Disorders Of Nervous System (091 , 092 , 093)	23.6%	88	\$58,655,659	1.5%	20.6% - 26.6%
Red Blood Cell Disorders (811 , 812)	6.9%	57	\$58,302,269	1.6%	3.8% - 10.0%
Tendonitis, Myositis & Bursitis (557 , 558)	34.2%	22	\$57,549,942	1.6%	31.0% - 37.4%
Perc Cardiovasc Proc W Non-Drug-Eluting Stent (248 , 249)	10.1%	31	\$57,308,245	3.2%	3.8% - 16.4%
Other Skin, Subcut Tiss & Breast Proc (579 , 580 , 581)	34.7%	21	\$52,643,356	1.3%	32.1% - 37.4%
Diabetes (637 , 638 , 639)	7.4%	48	\$52,425,528	0.4%	6.6% - 8.3%
Disorders Of Pancreas Except Malignancy (438 , 439 , 440)	10.4%	40	\$50,333,027	1.5%	7.3% - 13.4%
Pulmonary Edema & Respiratory Failure (189)	4.9%	33	\$49,120,489	2.7%	(0.5%) - 10.2%
Respiratory Signs & Symptoms (204)	46.7%	25	\$45,330,373	4.6%	37.6% - 55.7%
Bronchitis & Asthma (202 , 203)	11.4%	46	\$44,237,104	2.7%	6.1% - 16.7%
Seizures (100 , 101)	13.8%	37	\$42,040,554	2.7%	8.5% - 19.2%
Acute Myocardial Infarction, Discharged Alive (280 , 281 , 282)	3.4%	61	\$40,452,697	0.3%	2.8% - 4.0%
Atherosclerosis (302 , 303)	23.1%	32	\$40,415,329	3.2%	16.9% - 29.3%
Biopsies Of Musculoskeletal System & Connective Tissue (477 , 478 , 479)	11.6%	53	\$37,465,834	2.7%	6.3% - 16.9%
Hernia Procedures Except Inguinal & Femoral (353 , 354 , 355)	11.3%	27	\$33,594,803	0.9%	9.6% - 13.0%
Extracranial Procedures (037 , 038 , 039)	6.8%	41	\$32,046,888	1.0%	4.8% - 8.8%
Trauma To The Skin, Subcut Tiss & Breast (604 , 605)	18.2%	69	\$30,844,709	1.8%	14.6% - 21.8%
Major Cardiovasc Procedures (237 , 238)	1.7%	41	\$29,617,802	0.1%	1.5% - 1.9%
Cellulitis (602 , 603)	2.7%	60	\$27,513,534	1.0%	0.7% - 4.6%
Dysequilibrium (149)	19.8%	26	\$25,111,578	4.7%	10.6% - 29.1%
O.R. Procedures For Obesity (619 , 620 , 621)	10.0%	29	\$24,512,078	1.0%	8.1% - 11.9%
Angina Pectoris (311)	30.0%	47	\$24,340,952	7.9%	14.6% - 45.5%
Major Joint & Limb Reattachment Proc Of Upper Extremity (483 , 484)	5.4%	55	\$24,150,959	1.5%	2.6% - 8.3%
Other Respiratory System Diagnoses (205 , 206)	30.1%	27	\$23,201,149	3.1%	24.0% - 36.3%
Other Kidney & Urinary Tract Procedures (673 , 674 , 675)	7.1%	51	\$22,605,965	2.2%	2.7% - 11.4%
Other Circulatory System O.R. Procedures (264)	11.5%	102	\$22,082,549	2.8%	6.1% - 17.0%
Major Male Pelvic Procedures (707 , 708)	8.5%	33	\$20,531,330	1.4%	5.8% - 11.1%
Hypertension (304 , 305)	18.4%	24	\$19,829,253	3.1%	12.4% - 24.4%
Laparoscopic Cholecystectomy W/O C.D.E. (417 , 418 , 419)	2.0%	42	\$17,935,549	0.6%	0.7% - 3.3%
Kidney & Ureter Procedures For Neoplasm (656 , 657 , 658)	6.4%	32	\$16,389,930	0.5%	5.5% - 7.4%
Other Musculoskelet Sys & Conn Tiss O.R. Proc (515 , 516 , 517)	5.2%	78	\$15,593,804	1.4%	2.4% - 8.0%
Signs & Symptoms Of Musculoskeletal System & Conn Tissue (555 , 556)	17.6%	25	\$14,490,946	4.1%	9.6% - 25.7%
Cranial & Peripheral Nerve Disorders (073 , 074)	10.9%	54	\$14,312,371	2.7%	5.6% - 16.1%
AICD Generator Procedures (245)	16.1%	138	\$13,799,258	2.3%	11.6% - 20.6%

PPS Acute Care Hospital Service Types Billed to Inpatient Hospital PPS (MS- DRG Groups)	Improper Payment Rate				
	Improper Payment Rate	Number of Line Items (Sample)	Projected Improper Payments	Standard Error	95% Confidence Interval
Intracranial Hemorrhage Or Cerebral Infarction (064 , 065 , 066)	0.6%	103	\$12,043,254	0.5%	(0.5%) - 1.6%
Stomach, Esophageal & Duodenal Proc (326 , 327 , 328)	1.0%	31	\$10,980,409	0.4%	0.3% - 1.7%
Respiratory Infections & Inflammations (177 , 178 , 179)	0.8%	38	\$10,585,379	0.8%	(0.7%) - 2.2%
Peripheral Vascular Disorders (299 , 300 , 301)	2.1%	49	\$10,019,516	0.6%	0.8% - 3.3%
Thyroid, Parathyroid & Thyroglossal Procedures (625 , 626 , 627)	23.7%	25	\$9,676,987	4.2%	15.5% - 32.0%
Otitis Media & Uri (152 , 153)	13.0%	59	\$8,208,595	3.1%	6.9% - 19.1%
Poisoning & Toxic Effects Of Drugs (917 , 918)	3.6%	34	\$8,031,407	1.2%	1.2% - 6.0%
Other Digestive System O.R. Procedures (356 , 357 , 358)	1.2%	46	\$7,371,335	0.4%	0.5% - 2.0%
Complications Of Treatment (919 , 920 , 921)	1.6%	54	\$7,244,393	0.5%	0.6% - 2.7%
Carotid Artery Stent Procedure (034 , 035 , 036)	22.9%	23	\$5,507,582	7.0%	9.2% - 36.5%
Revision Of Hip Or Knee Replacement (466 , 467 , 468)	0.7%	38	\$4,911,205	0.1%	0.6% - 0.9%
Nonspecific Cva & Precerebral Occlusion W/O Infarct (067 , 068)	5.0%	21	\$4,407,312	1.7%	1.6% - 8.3%
Hip & Femur Procedures Except Major Joint (480 , 481 , 482)	0.2%	39	\$3,780,423	0.0%	0.2% - 0.3%
Traumatic Stupor & Coma, Coma <1 Hr (085 , 086 , 087)	1.8%	32	\$3,668,443	0.1%	1.7% - 1.9%
Wnd Debrid & Skn Graft Exc Hand, For Musculo-Conn Tiss Dis (463 , 464 , 465)	0.5%	50	\$3,350,528	0.4%	(0.2%) - 1.3%
Spinal Fus Exc Cerv W Spinal Curv/Malig/Infec Or 9+ Fus (456 , 457 , 458)	1.1%	27	\$3,197,495	0.6%	( 0.1%) - 2.3%
Fever (864)	2.9%	24	\$2,517,950	2.6%	( 2.2%) - 8.1%
Craniotomy & Endovascular Intracranial Procedures (025 , 026 , 027)	0.3%	28	\$1,693,514	0.0%	0.3% - 0.3%
Urinary Stones W/O Esw Lithotripsy (693 , 694)	4.0%	24	\$1,558,708	0.5%	3.1% - 5.0%
Legacy Drg Claims	4.1%	5	\$1,212,533	4.0%	( 3.6%) - 11.9%
Major Small & Large Bowel Procedures (329 , 330 , 331)	0.0%	76	\$266,580	0.0%	(0.0%) - 0.0%
Postoperative Or Post-Traumatic Infections W O.R. Proc (856 , 857 , 858)	0.0%	49	\$96,244	0.0%	(0.0%) - 0.0%
Major Chest Procedures (163 , 164 , 165)	0.0%	31	N/A	N/A	N/A
Pulmonary Embolism (175 , 176)	0.0%	41	N/A	N/A	N/A
All Type of Services (Incl. Codes Not Listed)	9.3%	7,233	\$10,534,570,928	0.5%	8.3% - 10.4%

# Appendix F: Projected Improper Payments by Provider Type for Each Claim Type

This series of tables is sorted in descending order by projected improper payments. All estimates in this table are based on a minimum of 30 lines in the sample. Some columns and/or rows may not sum correctly due to rounding.

The CERT program is unable to calculate provider compliance improper payment rates for FIs/Part A MACs due to systems limitations.

**Table F1: Improper Payment Rates and Improper Payments by Provider Type: Part B**

Provider Types Billing to Part B	Improper Payment Rate				Provider Compliance Improper Payment Rate
	Improper Payment Rate	Projected Improper Payments	Sampled Claims	95% Confidence Interval	
Internal Medicine	14.9%	\$1,422,286,794	2,090	12.2% - 17.5%	24.1%
Clinical Laboratory (Billing Independently)	19.2%	\$726,771,197	1,025	13.3% - 25.2%	24.7%
Family Practice	12.6%	\$650,921,747	1,158	10.6% - 14.6%	20.9%
Cardiology	11.0%	\$649,488,154	1,155	9.1% - 12.8%	21.4%
Diagnostic Radiology	9.1%	\$398,669,715	1,236	6.0% - 12.2%	14.9%
Physical Therapist in Private Practice	17.5%	\$311,697,429	554	13.4% - 21.6%	22.0%
Chiropractic	47.4%	\$277,795,837	529	42.4% - 52.5%	56.3%
Radiation Oncology	19.4%	\$271,448,750	178	1.0% - 37.7%	22.0%
Pulmonary Disease	15.5%	\$246,436,482	295	13.0% - 18.0%	23.5%
Nephrology	13.1%	\$244,156,049	283	9.4% - 16.7%	17.1%
Ambulance Service Supplier (e.g., private ambulance companies, funeral homes)	4.2%	\$229,988,699	475	1.9% - 6.4%	13.5%
Orthopedic Surgery	8.5%	\$211,140,291	286	6.2% - 10.7%	32.2%
Neurology	17.7%	\$208,237,121	185	15.3% - 20.2%	23.0%
Emergency Medicine	9.3%	\$200,273,927	441	7.4% - 11.2%	16.3%
General Surgery	12.3%	\$198,511,637	175	9.5% - 15.2%	17.7%
Gastroenterology	8.9%	\$173,929,221	282	4.9% - 12.8%	18.5%
Hematology/Oncology	3.8%	\$160,146,367	327	2.4% - 5.1%	7.2%
Ophthalmology	2.6%	\$159,655,261	556	1.7% - 3.6%	7.6%
Psychiatry	19.2%	\$153,865,562	218	15.9% - 22.4%	27.6%
Dermatology	6.3%	\$145,980,697	239	0.8% - 11.9%	13.2%
Podiatry	7.4%	\$131,795,384	297	5.5% - 9.4%	18.0%
Urology	7.4%	\$130,432,608	210	6.1% - 8.6%	11.2%
Medical Oncology	12.1%	\$119,667,356	105	10.1% - 14.0%	11.1%
All Provider Types With Less Than 30 Claims	7.2%	\$95,589,332	162	4.7% - 9.7%	11.1%
Physical Medicine and Rehabilitation	13.4%	\$94,791,813	145	10.9% - 15.9%	22.5%
Physician Assistant	10.4%	\$93,167,150	225	7.5% - 13.4%	15.5%
Infectious Disease	17.7%	\$92,460,014	102	15.6% - 19.9%	19.5%
Pathology	7.6%	\$90,875,275	167	0.8% - 14.5%	12.0%
Nurse Practitioner	7.5%	\$88,104,982	343	5.5% - 9.4%	15.3%

Obstetrics/Gynecology	11.6%	\$83,080,121	76	9.6% - 13.6%	18.6%
General Practice	15.4%	\$81,444,218	101	11.7% - 19.1%	24.9%
Anesthesiology	4.7%	\$72,543,872	183	2.0% - 7.4%	9.8%
Vascular Surgery	6.1%	\$67,279,622	57	5.8% - 6.5%	8.1%
Clinical Social Worker	22.9%	\$63,479,546	74	16.7% - 29.2%	28.6%
Clinical Psychologist	14.4%	\$59,868,197	91	8.0% - 20.8%	23.3%
Rheumatology	9.6%	\$52,801,817	84	8.1% - 11.1%	12.7%
Otolaryngology	7.1%	\$52,251,043	95	5.0% - 9.2%	9.2%
Endocrinology	12.1%	\$45,331,842	71	10.4% - 13.8%	20.3%
Independent Diagnostic Testing Facility (IDTF)	4.2%	\$39,060,239	91	3.3% - 5.1%	56.7%
Neurosurgery	6.7%	\$30,154,579	32	6.6% - 6.8%	54.8%
Allergy/Immunology	42.6%	\$29,417,402	21	36.3% - 48.9%	44.2%
Occupational Therapist in Private Practice	21.0%	\$27,342,110	41	17.0% - 25.0%	25.6%
Critical Care (Intensivists)	10.6%	\$24,249,283	42	6.7% - 14.6%	15.1%
Cardiac Surgery	3.8%	\$21,431,055	17	N/A <sup>1</sup>	11.9%
Portable X-Ray Supplier (Billing Independently)	6.5%	\$19,174,518	32	5.0% - 8.0%	24.6%
Certified Registered Nurse Anesthetist (CRNA)	2.4%	\$18,687,970	97	0.3% - 4.4%	9.5%
Interventional Pain Management	4.4%	\$17,815,397	68	3.3% - 5.5%	15.5%
Pain Management	14.0%	\$17,223,691	22	N/A <sup>2</sup>	33.5%
Ambulatory Surgical Center	0.6%	\$16,310,782	184	0.4% - 0.8%	6.0%
Optometry	2.0%	\$15,958,953	150	0.9% - 3.0%	13.7%
Geriatric Medicine	7.2%	\$12,475,277	39	2.5% - 12.0%	8.4%
Hematology	7.7%	\$11,061,498	27	6.2% - 9.3%	22.8%
Interventional Radiology	3.6%	\$4,152,509	29	2.4% - 4.9%	5.0%
Gynecological/Oncology	2.6%	\$2,694,269	11	(0.3%) - 5.6%	24.1%
Mass Immunization Roster Billers (Mass Immunizers have to roster bill assigned claims and can only bill for immunizations)	0.0%	\$0	72	0.0% - 0.0%	24.3%
All Provider Types	9.9%	\$8,863,574,658	15,238	9.1% - 10.8%	18.6%

<sup>1</sup> Confidence Interval not applicable due to small sampling size

<sup>2</sup> Confidence Interval not applicable due to small sampling size

**Table F2: Improper Payment Rates and Improper Payments by Provider Type: DME**

Provider Types Billing to DME	Improper Payment Rate				Provider Compliance Improper Payment Rate
	Improper Payment Rate	Projected Improper Payments	Sampled Claims	95% Confidence Interval	
Medical supply company not included in 51, 52, or 53	72.8%	\$3,084,434,012	5,065	70.0% - 75.6%	73.6%
Pharmacy	59.4%	\$2,102,419,454	3,127	52.5% - 66.3%	60.6%
Medical Supply Company with Respiratory Therapist	69.5%	\$548,723,488	987	64.6% - 74.3%	71.2%
Individual orthotic personnel certified by an accrediting organization	65.6%	\$130,084,098	139	45.7% - 85.5%	65.7%
Individual prosthetic personnel certified by an accrediting organization	67.8%	\$122,443,680	143	55.5% - 80.2%	72.8%
Unknown Supplier/Provider	68.7%	\$112,264,289	76	40.4% - 97.0%	69.0%
Podiatry	57.8%	\$81,823,334	82	40.4% - 75.2%	61.6%
Medical supply company with prosthetic/orthotic personnel certified by an accrediting organization	61.7%	\$61,021,297	104	52.4% - 71.0%	63.9%
Medical supply company with orthotic personnel certified by an accrediting organization	60.6%	\$48,702,524	105	48.6% - 72.5%	75.8%
All Provider Types With Less Than 30 Claims	43.9%	\$48,615,283	114	32.5% - 55.3%	45.0%
Orthopedic Surgery	54.3%	\$33,057,660	53	24.6% - 83.9%	56.9%
Medical supply company with prosthetic personnel certified by an accrediting organization	43.7%	\$16,509,348	38	15.1% - 72.3%	44.5%
Supplier of oxygen and/or oxygen related equipment	50.1%	\$11,412,779	20	29.2% - 71.1%	50.3%
Optician	39.2%	\$4,127,756	8	10.0% - 68.4%	38.8%
Optometry	14.1%	\$4,093,588	31	1.4% - 26.9%	17.5%
Ophthalmology	27.0%	\$3,273,385	25	3.6% - 50.4%	40.8%
All Provider Types	66.0%	\$6,413,005,977	10,117	62.8% - 69.2%	67.4%

**Table F3: Improper Payment Rates and Improper Payments by Provider Type: Part A  
Excluding Inpatient Hospital PPS**

Provider Types Billing to Part A (excluding Inpatient Hospital PPS)	Improper Payment Rate			
	Improper Payment Rate	Projected Improper Payments	Sampled Claims	95% Confidence Interval
OPPS, Laboratory (an FI), Ambulatory (Billing an FI)	4.4%	\$2,008,353,414	2,330	3.4% - 5.5%
SNF	4.8%	\$1,612,249,756	1,218	3.4% - 6.1%
HHA	6.1%	\$1,186,583,023	1,526	4.6% - 7.6%
ESRD	5.3%	\$523,361,086	437	3.5% - 7.1%
Critical Access Hospital (CAH) Outpatient Services	10.0%	\$358,029,436	297	7.0% - 13.0%
Hospice	2.1%	\$297,831,439	460	0.3% - 3.9%
Inpatient Rehab Unit	8.0%	\$267,898,020	47	1.1% - 14.9%
Inpatient Rehabilitation Hospitals	9.3%	\$208,589,708	34	(1.1%) - 19.8%
All Provider Types With Less Than 30 Claims	29.1%	\$52,893,283	37	18.4% - 39.8%
RHCs	5.1%	\$47,276,386	352	2.5% - 7.6%
Outpatient Rehab Facility (ORF)	6.8%	\$30,320,418	44	5.6% - 7.9%
FQHC	3.5%	\$19,477,114	154	0.2% - 6.8%
Inpatient Critical Access Hospital	0.9%	\$18,725,359	86	(0.8%) - 2.6%
Inpatient Psychiatric Hospitals	1.0%	\$15,487,488	40	0.7% - 1.4%
Non PPS Short Term Hospital Inpatient	0.0%	\$0	18	0.0% - 0.0%
Other FI Service Types	0.0%	\$0	1	N/A <sup>3</sup>
Overall	4.8%	\$6,647,075,928	7,081	4.2% - 5.5%

**Table F4: Improper Payment Rates and Improper Payments by Provider Type: Part A  
Inpatient Hospital PPS**

Provider Types Billing to Part A Inpatient Hospital PPS	Improper Payment Rate			
	Improper Payment Rate	Projected Improper Payments	Sampled Claims	95% Confidence Interval
DRG Short Term	9.6%	\$10,161,115,996	7,101	8.5% - 10.7%
Other FI Service Types	12.6%	\$282,447,581	97	5.8% - 19.4%
DRG Long Term	1.9%	\$91,007,352	35	1.3% - 2.5%
Overall	9.3%	\$10,534,570,928	7,233	8.3% - 10.4%

<sup>3</sup> Confidence Interval not applicable due to small sampling size

# Appendix G – Improper Payment Rates and Type of Error by Provider Type for Each Claim Type

Some columns and/or rows may not sum correctly due to rounding.

**Table G1: Improper Payment Rates by Provider Type and Type of Error: Part B**

Provider Types Billed to Part B	Improper Payment Rate	Number of Claims in Sample	Type of Error				
			No Doc	Insufficient Doc	Medical Necessity	Incorrect Coding	Other
Chiropractic	47.4%	529	0.6%	76.2%	22.9%	0.2%	0.2%
Allergy/Immunology	42.6%	21	0.0%	84.3%	2.4%	13.3%	0.0%
Clinical Social Worker	22.9%	74	3.6%	95.5%	0.0%	0.9%	0.0%
Occupational Therapist in Private Practice	21.0%	41	0.0%	93.6%	0.0%	6.4%	0.0%
Radiation Oncology	19.4%	178	8.5%	90.2%	0.0%	1.2%	0.0%
Clinical Laboratory (Billing Independently)	19.2%	1,025	0.4%	94.3%	4.2%	1.0%	0.2%
Psychiatry	19.2%	218	6.1%	50.4%	0.0%	43.5%	0.0%
Neurology	17.7%	185	8.6%	37.7%	0.0%	53.7%	0.0%
Infectious Disease	17.7%	102	0.0%	44.9%	0.0%	55.1%	0.0%
Physical Therapist in Private Practice	17.5%	554	2.4%	95.2%	0.0%	2.5%	0.0%
Pulmonary Disease	15.5%	295	5.8%	37.2%	0.3%	56.7%	0.0%
General Practice	15.4%	101	0.0%	67.5%	0.4%	32.1%	0.0%
Internal Medicine	14.9%	2,090	11.9%	48.4%	0.7%	38.7%	0.3%
Clinical Psychologist	14.4%	91	0.0%	95.4%	0.0%	0.0%	4.6%
Pain Management	14.0%	22	0.0%	32.5%	11.4%	56.1%	0.0%
Physical Medicine and Rehabilitation	13.4%	145	0.0%	52.4%	4.6%	43.0%	0.0%
Nephrology	13.1%	283	8.4%	53.6%	0.4%	37.6%	0.0%
Family Practice	12.6%	1,158	3.8%	54.7%	2.3%	37.2%	2.1%
General Surgery	12.3%	175	0.0%	41.1%	0.0%	58.9%	0.0%
Endocrinology	12.1%	71	0.0%	20.4%	0.3%	79.3%	0.0%
Medical Oncology	12.1%	105	0.0%	88.9%	0.0%	10.2%	0.8%
Obstetrics/Gynecology	11.6%	76	1.3%	45.2%	0.0%	53.5%	0.0%
Cardiology	11.0%	1,155	0.7%	59.0%	5.2%	35.0%	0.1%
Critical Care (Intensivists)	10.6%	42	0.0%	62.0%	0.0%	38.0%	0.0%
Physician Assistant	10.4%	225	0.0%	59.4%	0.2%	40.4%	0.0%
Rheumatology	9.6%	84	25.3%	20.9%	0.0%	53.8%	0.0%
Emergency Medicine	9.3%	441	0.0%	28.3%	0.0%	71.3%	0.4%
Diagnostic Radiology	9.1%	1,236	0.0%	94.9%	2.7%	2.3%	0.1%
Gastroenterology	8.9%	282	0.0%	37.9%	0.0%	62.1%	0.0%
Orthopedic Surgery	8.5%	286	0.0%	58.2%	1.6%	40.2%	0.0%
Hematology	7.7%	27	0.0%	72.2%	5.3%	22.5%	0.0%
Pathology	7.6%	167	1.4%	95.6%	0.4%	2.6%	0.0%
Nurse Practitioner	7.5%	343	13.2%	54.9%	0.3%	31.6%	0.0%
Podiatry	7.4%	297	0.0%	50.1%	2.6%	47.2%	0.0%
Urology	7.4%	210	0.0%	62.2%	0.7%	37.1%	0.0%



Provider Types Billed to Part B	Improper Payment Rate	Number of Claims in Sample	Type of Error				
			No Doc	Insufficient Doc	Medical Necessity	Incorrect Coding	Other
Geriatric Medicine	7.2%	39	0.0%	0.0%	0.0%	100.0%	0.0%
All Provider Types With Less Than 30 Claims	7.2%	162	0.9%	48.1%	4.4%	46.6%	0.0%
Otolaryngology	7.1%	95	0.0%	29.4%	0.0%	70.6%	0.0%
Neurosurgery	6.7%	32	0.0%	0.0%	0.0%	100.0%	0.0%
Portable X-Ray Supplier (Billing Independently)	6.5%	32	0.0%	30.2%	69.8%	0.0%	0.0%
Dermatology	6.3%	239	6.9%	73.4%	0.0%	19.6%	0.0%
Vascular Surgery	6.1%	57	2.7%	77.1%	0.0%	20.2%	0.0%
Anesthesiology	4.7%	183	0.0%	58.1%	15.2%	26.7%	0.0%
Interventional Pain Management	4.4%	68	0.0%	76.7%	1.4%	21.9%	0.0%
Independent Diagnostic Testing Facility (IDTF)	4.2%	91	1.4%	97.2%	1.3%	0.0%	0.0%
Ambulance Service Supplier (e.g., private ambulance companies, funeral homes)	4.2%	475	31.3%	40.9%	18.4%	9.4%	0.0%
Hematology/Oncology	3.8%	327	4.1%	58.8%	4.3%	32.8%	0.0%
Cardiac Surgery	3.8%	17	0.0%	57.0%	13.4%	29.6%	0.0%
Interventional Radiology	3.6%	29	0.0%	100.0%	0.0%	0.0%	0.0%
Gynecological/Oncology	2.6%	11	0.0%	77.6%	22.3%	0.0%	0.0%
Ophthalmology	2.6%	556	2.9%	77.3%	1.3%	18.6%	0.0%
Certified Registered Nurse Anesthetist (CRNA)	2.4%	97	0.0%	100.0%	0.0%	0.0%	0.0%
Optometry	2.0%	150	23.1%	26.9%	0.0%	50.0%	0.0%
Ambulatory Surgical Center	0.6%	184	7.5%	21.7%	70.7%	0.0%	0.0%
Mass Immunization Roster Billers (Mass Immunizers have to roster bill assigned claims and can only bill for immunizations)	0.0%	72	N/A	N/A	N/A	N/A	N/A
All Provider Types	9.9%	15,238	4.8%	61.7%	3.1%	30.0%	0.3%

**Table G2: Improper Payment Rates by Provider Type and Type of Error: DME**

Provider Types Billed to DME	Improper Payment Rate	Number of Claims in Sample	Type of Error				
			No Doc	Insufficient Doc	Medical Necessity	Incorrect Coding	Other
Medical supply company not included in 51, 52, or 53	72.8%	5,065	0.7%	91.0%	6.7%	0.3%	1.3%
Medical Supply Company with Respiratory Therapist	69.5%	987	0.8%	97.5%	1.2%	0.2%	0.2%
Unknown Supplier/Provider	68.7%	76	0.8%	97.6%	1.6%	0.0%	0.0%
Individual prosthetic personnel certified by an accrediting organization	67.8%	143	0.0%	93.7%	6.3%	0.0%	0.0%
Individual orthotic personnel certified by an accrediting organization	65.6%	139	0.0%	100.0%	0.0%	0.0%	0.0%
Medical supply company with prosthetic/orthotic personnel certified by an accrediting organization	61.7%	104	0.0%	100.0%	0.0%	0.0%	0.0%
Medical supply company with orthotic personnel certified by an accrediting organization	60.6%	105	4.7%	95.3%	0.0%	0.0%	0.0%
Pharmacy	59.4%	3,127	0.2%	97.3%	2.0%	0.2%	0.3%
Podiatry	57.8%	82	2.2%	94.6%	2.8%	0.0%	0.4%
Orthopedic Surgery	54.3%	53	0.0%	98.9%	0.0%	0.0%	1.1%
Supplier of oxygen and/or oxygen related equipment	50.1%	20	0.0%	100.0%	0.0%	0.0%	0.0%
All Provider Types With Less Than 30 Claims	43.9%	114	0.2%	92.7%	2.9%	0.0%	4.2%
Medical supply company with prosthetic personnel certified by an accrediting organization	43.7%	38	0.0%	89.7%	0.0%	0.0%	10.3%
Optician	39.2%	8	0.0%	98.7%	0.0%	0.0%	1.3%
Ophthalmology	27.0%	25	12.8%	87.2%	0.0%	0.0%	0.0%
Optometry	14.1%	31	0.0%	100.0%	0.0%	0.0%	0.0%
All Provider Types	66.0%	10,117	0.5%	94.2%	4.2%	0.2%	0.8%

**Table G3: Improper Payment Rates by Provider Type and Type of Error: Part A  
Excluding Inpatient Hospital PPS**

Provider Types Billed to Part A excluding Inpatient Hospital PPS	Improper Payment Rate	Number of Claims in Sample	Type of Error				
			No Doc	Insufficient Doc	Medical Necessity	Incorrect Coding	Other
All Provider Types With Less Than 30 Claims	29.1%	37	0.0%	98.5%	0.0%	1.5%	0.0%
Critical Access Hospital (CAH) Outpatient Services	10.0%	297	0.0%	92.3%	2.4%	5.3%	0.0%
Inpatient Rehabilitation Hospitals	9.3%	34	0.0%	64.3%	35.7%	0.0%	0.0%
Inpatient Rehab Unit	8.0%	47	0.0%	100.0%	0.0%	0.0%	0.0%
Outpatient Rehab Facility (ORF)	6.8%	44	0.0%	95.9%	0.0%	4.1%	0.0%
HHA	6.1%	1,526	1.7%	45.9%	44.3%	8.1%	0.0%
ESRD	5.3%	437	0.1%	98.9%	0.0%	1.0%	0.0%
RHCs	5.1%	352	11.6%	88.4%	0.0%	0.0%	0.0%
SNF	4.8%	1,218	0.0%	62.8%	5.3%	21.1%	10.7%
OPPS, Laboratory (an FI), Ambulatory (Billing an FI)	4.4%	2,330	5.9%	82.1%	1.7%	10.2%	0.2%
FQHC	3.5%	154	0.0%	100.0%	0.0%	0.0%	0.0%
Hospice	2.1%	460	0.0%	25.5%	67.2%	7.3%	0.0%
Inpatient Psychiatric Hospitals	1.0%	40	0.0%	100.0%	0.0%	0.0%	0.0%
Inpatient Critical Access Hospital	0.9%	86	0.0%	100.0%	0.0%	0.0%	0.0%
Non PPS Short Term Hospital Inpatient	0.0%	18	N/A	N/A	N/A	N/A	N/A
Other FI Service Types	0.0%	1	N/A	N/A	N/A	N/A	N/A
All Provider Types	4.8%	7,081	2.2%	70.8%	14.0%	10.4%	2.7%

**Table G4: Improper Payment Rates by Provider Type and Type of Error: Part A Inpatient  
Hospital PPS**

Provider Types Billed to Part A Inpatient Hospital PPS	Improper Payment Rate	Number of Claims in Sample	Type of Error				
			No Doc	Insufficient Doc	Medical Necessity	Incorrect Coding	Other
Other FI Service Types	12.6%	97	0.0%	50.1%	49.7%	0.1%	0.0%
DRG Short Term	9.6%	7,101	1.3%	11.3%	75.0%	12.0%	0.5%
DRG Long Term	1.9%	35	0.0%	0.0%	12.0%	88.0%	0.0%
All Provider Types	9.3%	7,233	1.2%	12.3%	73.8%	12.3%	0.4%

# Appendix H: Coding Information

**Table H1: Problem Code: CPT Code 99233**

Fiscal Year	Number of Lines Reviewed	Number of Lines Questioned	Percent of Lines in Error
1996	217	115	53.0%
1997	416	128	30.8%
1998	457	114	24.9%
1999	187	102	54.5%
2000	449	220	49.0%
2001	338	142	42.0%
2002	228	174	76.3%
2003	709	435	61.4%
2004	768	391	50.9%
2005	1,079	474	43.9%
2006	1,102	440	39.9%
2007	1,157	532	46.0%
2008	1,032	489	47.4%
2009	882	433	49.1%
2010	697	366	52.5%
2011	611	316	51.7%
Nov 2012	992	586	59.1%

**Table H2: Problem Code: CPT Code 99214**

Fiscal Year	Number of Lines Reviewed	Number of Lines Questioned	Percent of Lines in Error
1996	140	54	38.6%
1997	234	86	36.8%
1998	168	63	37.5%
1999	143	81	56.6%
2000	191	71	37.2%
2001	214	67	31.3%
2002	104	24	23.1%
2003	2,798	687	24.6%
2004	3,250	589	18.1%
2005	4,436	648	14.6%
2006	4,491	609	13.6%
2007	4,287	602	14.0%
2008	4,301	608	14.1%
2009	3,342	617	18.5%
2010	2,829	569	20.1%
2011	2,316	404	17.4%
Nov 2012	1,403	260	18.5%

**Table H3: Problem Code: CPT Code 99232**

Fiscal Year	Number of Lines Reviewed	Number of Lines Questioned	Percent of Lines in Error
1996	597	266	44.6%
1997	1,159	350	30.2%
1998	911	181	19.9%
1999	837	279	33.3%
2000	881	270	30.6%
2001	964	146	15.1%
2002	488	179	36.7%
2003	2,213	855	38.6%
2004	2,485	754	30.3%
2005	3,194	555	17.4%
2006	3,236	295	9.1%
2007	3,164	393	12.4%
2008	2,728	316	11.6%
2009	2,180	326	15.0%
2010	1,693	290	17.1%
2011	1,600	240	15.0%
Nov 2012	1,490	221	14.8%

Table H4 provides information on the impact of one-level disagreement between Carriers/Part B MACs and providers when coding E&M services.

**Table H4: Impact of One Level E&M (Top 20)**

Final E & M Codes	Incorrect Coding Errors		
	Improper Payment Rate	Projected Improper Payments	95% Confidence Interval
Office/outpatient visit est (99214)	5.1%	\$335,616,114	4.4% - 5.9%
Subsequent hospital care (99233)	14.9%	\$252,429,553	13.4% - 16.5%
Office/outpatient visit new (99204)	10.9%	\$117,644,257	8.0% - 13.9%
Office/outpatient visit est (99215)	10.0%	\$107,081,809	8.3% - 11.7%
Emergency dept visit (99285)	8.6%	\$106,419,522	6.6% - 10.6%
Subsequent hospital care (99232)	2.8%	\$83,313,312	1.7% - 3.9%
Initial hospital care (99222)	9.8%	\$75,646,344	7.9% - 11.6%
Office/outpatient visit est (99213)	1.3%	\$74,345,327	0.7% - 2.0%
Office/outpatient visit new (99203)	7.7%	\$65,161,048	5.4% - 10.0%
Initial hospital care (99223)	3.1%	\$58,873,725	2.2% - 4.0%
Emergency dept visit (99284)	6.5%	\$38,059,139	3.0% - 10.0%
Office/outpatient visit est (99212)	5.6%	\$31,649,312	2.4% - 8.7%
Nursing fac care subseq (99309)	5.5%	\$29,773,006	3.8% - 7.1%
Hospital discharge day (99239)	7.9%	\$21,195,514	6.4% - 9.3%
Subsequent hospital care (99231)	4.1%	\$18,779,323	0.8% - 7.4%
Nursing fac care subseq (99310)	13.9%	\$17,520,303	11.8% - 16.0%
Office/outpatient visit new (99205)	2.4%	\$13,048,757	0.9% - 3.9%
Nursing facility care init (99306)	4.1%	\$6,427,625	3.2% - 5.0%
Nursing fac care subseq (99308)	0.4%	\$1,865,062	(0.3%) - 1.1%
Emergency dept visit (99283)	1.1%	\$1,830,535	0.2% - 1.9%
All Other Codes	0.0%	\$19,482,295	0.0% - 0.1%
Overall	1.7%	\$1,476,161,883	1.5% - 1.8%

Tables H5 through H8 list the top twenty services with the highest dollars in error due to upcoding. Upcoding refers to billing a higher level service or a service with a higher payment than is supported by the medical record documentation. All estimates in these tables are based on a minimum of 30 claims in the sample. Data in these tables are sorted in descending order by projected improper payments.

**Table H5: Type of Services with Upcoding Errors: Part B**

Service Type Billed to Part B (BETOS)	Upcoding Errors		
	Improper Payment Rate	Projected Improper Payments	95% Confidence Interval
Office visits - established	4.2%	\$588,502,991	3.7% - 4.7%
Hospital visit - initial	18.6%	\$540,609,069	16.8% - 20.4%
Office visits - new	16.8%	\$448,179,367	14.3% - 19.2%
Hospital visit - subsequent	7.6%	\$439,660,205	6.6% - 8.5%
Nursing home visit	9.5%	\$162,596,486	7.5% - 11.4%
Emergency room visit	7.8%	\$157,783,529	6.1% - 9.6%
Hospital visit - critical care	7.1%	\$63,877,164	2.6% - 11.6%
Minor procedures - other (Medicare fee schedule)	0.9%	\$30,960,834	0.7% - 1.1%
Dialysis services (Medicare Fee Schedule)	2.5%	\$22,706,827	1.9% - 3.1%
Ambulance	0.4%	\$21,629,744	0.1% - 0.7%
Lab tests - blood counts	3.4%	\$11,591,751	2.3% - 4.5%
Home visit	2.8%	\$5,926,068	(0.5%) - 6.1%
Ambulatory procedures - other	0.6%	\$3,801,998	0.3% - 0.9%
Other tests - electrocardiograms	0.9%	\$3,748,291	(0.4%) - 2.3%
Imaging/procedure - other	1.8%	\$3,642,382	(1.6%) - 5.1%
Ambulatory procedures - skin	0.2%	\$3,152,326	(0.0%) - 0.3%
Lab tests - other (Medicare fee schedule)	0.1%	\$2,342,046	(0.1%) - 0.3%
Specialist - ophthalmology	0.1%	\$2,293,366	(0.1%) - 0.2%
Advanced imaging - CAT/CT/CTA: other	0.2%	\$2,176,539	(0.2%) - 0.7%
Other drugs	0.0%	\$1,733,686	(0.0%) - 0.1%
All Other Codes	0.0%	\$11,051,324	0.0% - 0.0%
Overall	2.8%	\$2,527,965,992	2.6% - 3.1%

**Table H6: Type of Services with Upcoding Errors: DME**

Service Type Billed to DME (HCPCS)	Upcoding Errors		
	Improper Payment Rate	Projected Improper Payments	95% Confidence Interval
Oxygen Supplies/Equipment	0.2%	\$3,368,344	(0.0%) - 0.4%
Lower Limb Orthoses	0.7%	\$1,969,078	(0.7%) - 2.2%
Wheelchairs Manual	0.8%	\$1,603,102	(0.3%) - 1.9%
Glucose Monitor	0.1%	\$896,675	(0.1%) - 0.2%
Nebulizers & Related Drugs	0.1%	\$862,618	(0.1%) - 0.3%
Enteral Nutrition	0.2%	\$842,639	(0.2%) - 0.6%
Hospital Beds/Accessories	0.4%	\$779,979	(0.4%) - 1.1%
Immunosuppressive Drugs	0.2%	\$687,394	(0.1%) - 0.5%
Parenteral Nutrition	0.3%	\$685,360	(0.4%) - 1.0%
Surgical Dressings	0.4%	\$521,684	(0.4%) - 1.1%
Support Surfaces	0.2%	\$122,958	(0.2%) - 0.5%
Urological Supplies	0.1%	\$95,421	(0.0%) - 0.2%
Wheelchairs Options/Accessories	0.0%	\$89,112	(0.0%) - 0.1%
Wheelchairs Motorized	0.0%	\$75,551	(0.0%) - 0.1%
Lower Limb Prostheses	0.0%	\$31,099	(0.0%) - 0.0%
Tracheostomy Supplies	0.1%	\$25,916	(0.1%) - 0.4%
All Other Codes	0.0%	\$640,781	(0.0%) - 0.1%
Overall	0.1%	\$13,297,709	0.1% - 0.2%

**Table H7: Type of Services with Upcoding Errors: Part A Excluding Inpatient Hospital PPS**

Service Type Billed to Part A excluding Inpatient Hospital PPS (Type of Bill)	Upcoding Errors		
	Improper Payment Rate	Projected Improper Payments	95% Confidence Interval
SNF Inpatient	1.0%	\$305,638,537	0.5% - 1.5%
Hospital Outpatient	0.4%	\$169,560,325	(0.3%) - 1.1%
Home Health	0.4%	\$79,855,672	0.2% - 0.6%
Nonhospital Based Hospice	0.1%	\$17,691,536	(0.1%) - 0.4%
Clinic ESRD	0.0%	\$4,621,984	0.0% - 0.1%
Hospital Based Hospice	0.2%	\$3,987,713	(0.2%) - 0.7%
SNF Inpatient Part B	0.1%	\$2,101,281	(0.0%) - 0.2%
Critical Access Hospital	0.1%	\$1,823,515	(0.0%) - 0.1%
Hospital Other Part B	0.4%	\$1,810,184	0.3% - 0.5%
Clinic Opt	0.3%	\$1,245,183	0.2% - 0.3%
All Codes With Less Than 30 Claims	0.0%	\$816,426	(0.0%) - 0.1%
Hospital Inpatient Part B	0.0%	\$111,960	(0.0%) - 0.1%
Overall	0.4%	\$589,264,317	0.2% - 0.7%

**Table H8: Type of Services with Upcoding Errors: Part A Inpatient Hospital PPS**

Service Type Billed to Part A Inpatient Hospital PPS (DRG Group)	Upcoding Errors		
	Improper Payment Rate	Projected Improper Payments	95% Confidence Interval
G.I. Hemorrhage (377 , 378 , 379)	2.7%	\$56,218,265	(1.0%) - 6.4%
Disorders Of Pancreas Except Malignancy (438 , 439 , 440)	9.4%	\$45,624,790	6.9% - 11.9%
Renal Failure (682 , 683 , 684)	1.6%	\$37,330,271	0.8% - 2.4%
Major Cardiovasc Procedures (237 , 238)	1.6%	\$28,903,882	1.5% - 1.8%
Septicemia Or Severe Sepsis W/O Mv 96+ Hours (871 , 872)	0.5%	\$24,504,381	(0.1%) - 1.1%
Hernia Procedures Except Inguinal & Femoral (353 , 354 , 355)	7.8%	\$23,102,785	7.5% - 8.0%
Simple Pneumonia & Pleurisy (193 , 194 , 195)	0.7%	\$22,479,730	(0.0%) - 1.4%
Pulmonary Edema & Respiratory Failure (189)	2.0%	\$20,446,956	1.7% - 2.4%
Heart Failure & Shock (291 , 292 , 293)	0.5%	\$19,013,231	(0.1%) - 1.1%
Seizures (100 , 101)	6.2%	\$18,714,570	5.4% - 6.9%
Major Gastrointestinal Disorders & Peritoneal Infections (371 , 372 , 373)	2.7%	\$18,165,369	2.4% - 3.0%
Cardiac Defibrillator Implant W/O Cardiac Cath (226 , 227)	2.5%	\$16,087,281	(2.0%) - 7.1%
Extensive O.R. Procedure Unrelated To Principal Diagnosis (981 , 982 , 983)	0.7%	\$13,741,795	(0.6%) - 2.0%
Other Digestive System Diagnoses (393 , 394 , 395)	1.7%	\$11,204,218	(1.5%) - 5.0%
Other Kidney & Urinary Tract Procedures (673 , 674 , 675)	3.0%	\$9,724,699	(0.2%) - 6.2%
Bronchitis & Asthma (202 , 203)	2.3%	\$8,913,500	1.8% - 2.8%
Other Digestive System O.R. Procedures (356 , 357 , 358)	0.6%	\$3,429,676	0.4% - 0.7%
Other Vascular Procedures (252 , 253 , 254)	0.2%	\$3,103,717	(0.0%) - 0.4%
Other Circulatory System O.R. Procedures (264)	1.5%	\$2,885,439	0.1% - 2.9%
Complications Of Treatment (919 , 920 , 921)	0.6%	\$2,536,004	0.5% - 0.7%
All Other Codes	0.2%	\$163,786,711	0.0% - 0.3%
Overall	0.5%	\$549,917,268	0.3% - 0.7%



# Appendix I: Overpayments

Tables I1 through I4 provide for each claim type the service-specific overpayment rates. The tables are sorted in descending order by projected improper payments. Some columns and/or rows may not sum correctly due to rounding.

**Table I1: Service Specific Overpayment Rates: Part B**

Service Billed to Part B (BETOS)	Number of Claims in Sample	Number of Lines in Sample	Dollars Overpaid in Sample	Total Dollars Paid in Sample	Projected Dollars Overpaid	Overpayment Rate
All Codes With Less Than 30 Claims	4,461	7,333	\$48,610	\$634,229	\$2,154,736,394	7.5%
Office/outpatient visit est (99214)	1,399	1,403	\$11,213	\$128,094	\$587,927,314	9.0%
Initial hospital care (99223)	503	505	\$24,248	\$89,142	\$524,597,981	27.5%
Subsequent hospital care (99233)	667	991	\$25,625	\$95,531	\$446,939,213	26.5%
Subsequent hospital care (99232)	891	1,485	\$13,193	\$102,420	\$349,498,752	11.7%
Office/outpatient visit est (99213)	834	841	\$2,715	\$50,932	\$301,796,605	5.4%
Office/outpatient visit new (99204)	129	129	\$3,635	\$16,152	\$262,057,777	24.4%
Office/outpatient visit est (99215)	255	256	\$7,184	\$31,575	\$238,948,696	22.3%
Critical care first hour (99291)	182	239	\$13,007	\$52,244	\$224,684,561	26.1%
Initial hospital care (99222)	166	167	\$5,383	\$20,263	\$203,468,274	26.3%
Chiropractic manipulation (98941)	361	492	\$6,351	\$13,975	\$197,934,576	48.3%
Therapeutic exercises (97110)	534	624	\$5,285	\$29,703	\$182,658,719	18.4%
Emergency dept visit (99285)	251	251	\$4,459	\$40,933	\$142,981,021	11.6%
Office/outpatient visit new (99203)	137	137	\$1,592	\$11,871	\$111,150,959	13.1%
Office/outpatient visit new (99205)	79	79	\$3,103	\$13,769	\$105,516,546	19.4%
Psytx off 45-50 min (90806)	85	121	\$1,778	\$6,700	\$105,380,953	31.3%
BLS (A0428)	131	141	\$2,110	\$27,472	\$96,020,582	6.8%
Manual therapy (97140)	339	384	\$2,326	\$11,708	\$90,300,113	23.8%
ESRD srv 4 visits p mo 20+ (90960)	60	61	\$1,545	\$16,664	\$81,741,303	15.0%
Complete cbc w/auto diff wbc (85025)	311	311	\$724	\$3,163	\$71,045,009	23.1%
All Other Codes	8,958	14,392	\$116,450	\$1,998,599	\$2,247,257,281	7.2%
Combined	15,238	30,342	\$300,536	\$3,395,140	\$8,726,642,628	9.8%

**Table I2: Service Specific Overpayment Rates: DME**

Service Billed to DME (HCP/PCS)	Number of Claims in Sample	Number of Lines in Sample	Dollars Overpaid in Sample	Total Dollars Paid in Sample	Projected Dollars Overpaid	Overpayment Rate
All Codes With Less Than 30 Claims	2,154	3,435	\$1,193,952	\$2,100,195	\$1,355,558,035	50.6%
Oxygen concentrator (E1390)	1,286	1,317	\$156,295	\$194,294	\$1,168,366,128	80.9%
Blood glucose/reagent strips (A4253)	1,255	1,263	\$103,521	\$129,283	\$906,250,472	80.6%
PWC gp 2 std cap chair (K0823)	999	1,002	\$513,426	\$553,349	\$201,693,896	97.3%
Hosp bed semi-electric w/ mattress (E0260)	283	289	\$23,544	\$27,437	\$137,852,967	87.2%
Lancets per box (A4259)	742	748	\$10,761	\$13,088	\$98,992,634	83.1%
Tacrolimus oral per 1 MG (J7507)	58	63	\$12,118	\$23,120	\$97,807,986	54.3%
Portable gaseous O2 (E0431)	590	608	\$12,296	\$15,203	\$96,375,515	80.9%
Cont airway pressure device (E0601)	210	213	\$7,914	\$14,860	\$80,812,581	50.0%
Budesonide non-comp unit (J7626)	100	105	\$13,453	\$24,905	\$78,369,581	54.1%
Parenteral sol 74-100 gm pro (B4197)	29	30	\$21,940	\$40,522	\$75,627,809	85.1%
Neg pressure wound therapy pump (E2402)	39	39	\$17,464	\$47,731	\$72,189,807	51.0%
Enteral feed supp pump per d (B4035)	91	92	\$10,283	\$19,145	\$70,291,185	54.8%
Nasal application device (A7034)	121	122	\$8,030	\$12,254	\$70,244,578	65.3%
Diabetic shoe for density insert (A5500)	97	102	\$8,271	\$11,594	\$68,920,996	73.2%
RAD w/o backup non-invasive interface (E0470)	68	75	\$9,166	\$13,213	\$63,658,439	69.6%
Disp fee inhal drugs/30 days (Q0513)	413	413	\$7,392	\$13,068	\$58,594,189	57.0%
CPAP full face mask (A7030)	75	75	\$7,308	\$11,524	\$57,481,278	59.3%
High strength lightweight wheelchair (K0004)	80	83	\$7,826	\$8,016	\$56,257,539	97.7%
Lightweight wheelchair (K0003)	99	110	\$6,250	\$6,821	\$55,809,106	94.2%
All Other Codes	5,548	9,443	\$1,782,731	\$2,769,009	\$1,541,814,088	64.1%
Combined	10,117	19,627	\$3,933,943	\$6,048,632	\$6,412,968,806	66.0%

**Table I3: Service Specific Overpayment Rates: Part A Excluding Inpatient Hospital PPS**

Service Billed to Part A excluding Inpatient Hospital PPS (Type of Bill)	Number of Claims in Sample	Dollars Overpaid in Sample	Total Dollars Paid in Sample	Projected Dollars Overpaid	Overpayment Rate
Hospital Outpatient	2,106	\$39,733	\$959,400	\$1,713,673,316	4.1%
SNF Inpatient	1,022	\$286,943	\$5,811,392	\$1,465,889,570	4.7%
Home Health	1,507	\$239,735	\$4,012,525	\$1,168,467,625	6.0%
Clinic ESRD	437	\$62,196	\$1,093,963	\$521,507,149	5.3%
Hospital Inpatient (Part A)	226	\$154,113	\$2,409,804	\$510,700,575	5.3%
Critical Access Hospital	297	\$8,147	\$102,817	\$340,984,000	9.5%
Hospital Other Part B	164	\$1,910	\$5,475	\$191,892,507	37.2%
Hospital based hospice	87	\$17,101	\$251,127	\$173,368,799	10.8%
Nonhospital based hospice	373	\$12,511	\$1,148,545	\$124,462,640	1.0%
SNF Inpatient Part B	165	\$5,332	\$132,617	\$84,898,775	3.7%
Community Mental Health Centers	14	\$892	\$12,371	\$48,186,481	31.4%
Clinical Rural Health	352	\$1,166	\$37,058	\$47,276,386	5.1%
Hospital Inpatient Part B	55	\$2,946	\$26,640	\$31,452,116	10.9%
Clinic OPT	44	\$763	\$10,774	\$30,320,418	6.8%
SNF Outpatient	31	\$1,376	\$16,150	\$27,542,250	17.3%
Hospital Swing Bed	5	\$4,487	\$58,727	\$26,188,082	1.2%
Federally Qualified Health Centers (Effective April 1, 2010)	138	\$315	\$14,665	\$12,623,991	2.4%
Clinic – Freestanding (Effective April 1, 2010)	16	\$284	\$1,193	\$6,853,123	28.2%
Clinic CORF	23	\$693	\$3,470	\$4,706,801	16.8%
All Other Codes	19	\$0	\$1,016	\$0	0.0%
Combined	7,081	\$840,644	\$16,109,729	\$6,530,994,603	4.7%

**Table I4: Service Specific Overpayment Rates: Part A Inpatient Hospital PPS**

Service Billed to Part A Inpatient Hospital PPS (MS-DRG Groups)	Number of Claims in Sample	Dollars Overpaid in Sample	Total Dollars Paid in Sample	Projected Dollars Overpaid	Overpayment Rate
Major Joint Replacement Or Reattachment Of Lower Extremity W/O Mcc (470)	451	\$730,687	\$5,615,861	\$709,324,239	14.4%
Cardiac Defibrillator Implant W/O Cardiac Cath W/O Mcc (227)	211	\$3,553,255	\$7,271,145	\$228,760,482	46.9%
Permanent Cardiac Pacemaker Implant W Cc (243)	139	\$818,976	\$2,451,107	\$226,086,374	34.4%
Perc Cardiovasc Proc W Drug-Eluting Stent W/O Mcc (247)	94	\$191,122	\$1,103,017	\$224,650,050	19.0%
Syncope & Collapse (312)	55	\$50,485	\$250,859	\$224,544,623	28.0%
Permanent Cardiac Pacemaker Implant W/O Cc/Mcc (244)	221	\$1,475,231	\$2,873,418	\$222,148,896	44.2%
Chest Pain (313)	45	\$67,841	\$141,356	\$221,342,441	47.7%
Spinal Fusion Except Cervical W/O Mcc (460)	259	\$613,327	\$6,245,459	\$214,674,033	14.9%
Chronic Obstructive Pulmonary Disease W Cc (191)	42	\$41,849	\$261,758	\$192,840,904	21.0%
Cardiac Defib Implant W Cardiac Cath W Ami/Hf/Shock W Mcc (222)	1	\$61,524	\$88,785	\$184,889,608	69.3%
Psychoses (885)	92	\$88,927	\$754,659	\$170,959,677	7.1%
Chronic Obstructive Pulmonary Disease W/O Cc/Mcc (192)	46	\$43,668	\$196,338	\$170,657,894	31.6%
Heart Failure & Shock W Cc (292)	72	\$54,321	\$445,329	\$167,559,312	11.5%
Nutritional & Misc Metabolic Disorders W/O Mcc (641)	57	\$45,795	\$229,074	\$166,434,835	27.2%
Kidney & Urinary Tract Infections W/O Mcc (690)	71	\$35,892	\$354,775	\$159,626,131	13.9%
Degenerative Nervous System Disorders W/O Mcc (057)	22	\$44,887	\$149,344	\$153,413,844	26.2%
Other Vascular Procedures W Mcc (252)	14	\$50,073	\$247,474	\$150,065,397	20.9%
Circulatory Disorders Except Ami, W Card Cath W/O Mcc (287)	107	\$138,372	\$708,273	\$146,345,169	19.6%
Esophagitis, Gastroent & Misc Digest Disorders W/O Mcc (392)	58	\$36,772	\$256,521	\$138,200,214	18.4%
Other Circulatory System Diagnoses W Mcc (314)	19	\$35,323	\$231,736	\$134,358,060	21.5%
All Other Codes	5,157	\$6,707,658	\$56,741,597	\$5,578,309,663	6.1%
Combined	7,233	\$14,885,986	\$86,617,884	\$9,785,191,848	8.7%

**Table I5: Service Specific Overpayment Rates: All CERT**

Service Billed to Part B/DME/Part A including Inpatient Hospital	Number of Claims in Sample	Dollars Overpaid in Sample	Total Dollars Paid in Sample	Projected Dollars Overpaid	Overpayment Rate
All	39,669	\$19,961,109	\$112,171,385	\$31,455,797,886	9.0%

# Appendix J: Underpayments

The following tables provide for each claim type the service-specific underpayment rates. The tables are sorted in descending order by projected dollars underpaid. Some columns and/or rows may not sum correctly due to rounding. All estimates in these tables are based on a minimum of 30 claims in the sample with at least one claim underpaid.

**Table J1: Service Specific Underpayment Rates: Part B**

Service Billed to Part B (BETOS)	Number of Claims in Sample	Number of Lines in Sample	Dollars Underpaid in Sample	Total Dollars Paid in Sample	Projected Dollars Underpaid	Underpayment Rate
Office/outpatient visit est (99212)	213	213	\$652	\$7,405	\$52,355,444	9.2%
Office/outpatient visit est (99213)	834	841	\$237	\$50,932	\$34,584,230	0.6%
Subsequent hospital care (99231)	173	281	\$367	\$10,876	\$18,779,323	4.1%
All Codes With Less Than 30 Claims	4,461	7,333	\$170	\$634,229	\$8,225,518	0.0%
Therapeutic exercises (97110)	534	624	\$149	\$29,703	\$4,922,006	0.5%
Office/outpatient visit est (99211)	130	133	\$141	\$2,128	\$4,382,528	3.6%
Office/outpatient visit est (99215)	255	256	\$57	\$31,575	\$3,749,169	0.4%
Ct head/brain w/o dye (70450)	83	84	\$32	\$3,654	\$2,382,698	1.1%
Comprehen metabolic panel (80053)	304	304	\$13	\$3,374	\$2,206,256	0.8%
Prothrombin time (85610)	208	209	\$14	\$1,046	\$1,319,153	1.4%
Office/outpatient visit new (99204)	129	129	\$14	\$16,152	\$914,662	0.1%
Triamcinolone acet inj NOS (J3301)	53	53	\$8	\$384	\$783,222	4.4%
Complete cbc w/auto diff wbc (85025)	311	311	\$3	\$3,163	\$611,025	0.2%
Chiropractic manipulation (98940)	105	131	\$10	\$2,744	\$585,702	0.5%
Ct thorax w/dye (71260)	60	60	\$33	\$4,515	\$556,920	0.5%
Methylprednisolone 40 MG inj (J1030)	30	30	\$4	\$92	\$341,323	8.0%
Office/outpatient visit est (99214)	1,399	1,403	\$2	\$128,094	\$154,825	0.0%
Initial hospital care (99223)	503	505	\$2	\$89,142	\$75,198	0.0%
Subsequent hospital care (99233)	667	991	\$0	\$95,531	\$2,827	0.0%
All Other Codes	10,116	16,451	\$0	\$2,280,401	\$0	0.0%
Combined	15,238	30,342	\$1,907	\$3,395,140	\$136,932,030	0.2%

**Table J2: Service Specific Underpayment Rates: DME**

Service Billed to DMEs (HCPCS)	Number of Claims in Sample	Number of Lines in Sample	Dollars Underpaid in Sample	Total Dollars Paid in Sample	Projected Dollars Underpaid	Underpayment Rate
Lithium batt for glucose mon (A4235)	78	78	\$6	\$213	\$37,170	1.9%
All Other Codes	10,105	19,549	\$0	\$6,048,419	\$0	0.0%
Combined	10,117	19,627	\$6	\$6,048,632	\$37,170	0.0%

**Table J3: Service Specific Underpayment Rates: Part A Excluding Inpatient Hospital PPS**

Service Billed to Part A excluding Inpatient Hospital PPS (Type of Bill)	Number of Claims in Sample	Number of Lines in Sample	Dollars Underpaid in Sample	Total Dollars Paid in Sample	Projected Dollars Underpaid	Underpayment Rate
Hospital Outpatient	2,106	2,106	\$1,838	\$959,400	\$44,162,233	0.1%
SNF Inpatient	1,022	1,022	\$6,086	\$5,811,392	\$31,332,778	0.1%
Home Health	1,507	1,507	\$4,048	\$4,012,525	\$18,115,398	0.1%
Critical Access Hospital	297	297	\$549	\$102,817	\$17,045,436	0.5%
SNF Inpatient Part B	165	165	\$221	\$132,617	\$2,586,383	0.1%
Clinic ESRD	437	437	\$226	\$1,093,963	\$1,853,937	0.0%
Hospital Inpatient Part B	55	55	\$115	\$26,640	\$985,160	0.3%
All Other Codes	1,492	1,492	\$0	\$3,970,374	\$0	0.0%
Combined	7,081	7,081	\$13,083	\$16,109,729	\$116,081,326	0.1%

**Table J4: Service Specific Underpayment Rates: Part A Inpatient Hospital PPS**

Service Billed to Part A Inpatient Hospital PPS (MS-DRG)	Number of Claims in Sample	Number of Lines in Sample	Dollars Underpaid in Sample	Total Dollars Paid in Sample	Projected Dollars Underpaid	Underpayment Rate
Other Resp System O.R. Procedures W Mcc (166)	10	10	\$22,323	\$318,333	\$80,058,668	7.0%
Extensive O.R. Procedure Unrelated To Principal Diagnosis W Mcc (981)	11	11	\$16,014	\$671,181	\$68,639,279	4.2%
Minor Small & Large Bowel Procedures W Cc (345)	1	1	\$9,387	\$18,181	\$38,867,730	51.6%
Medical Back Problems W Mcc (551)	3	3	\$14,203	\$52,010	\$36,990,385	25.3%
Septicemia Or Severe Sepsis W/O Mv 96+ Hours W Mcc (871)	152	152	\$17,407	\$2,002,984	\$35,204,725	0.8%
Renal Failure W Cc (683)	46	46	\$8,876	\$307,703	\$32,817,356	3.3%
Heart Failure & Shock W Cc (292)	72	72	\$3,644	\$445,329	\$32,235,458	2.2%
Cervical Spinal Fusion W/O Cc/Mcc (473)	34	34	\$3,662	\$438,158	\$31,724,936	7.5%
Heart Failure & Shock W Mcc (291)	73	73	\$9,180	\$705,399	\$27,057,071	1.2%
G.I. Obstruction W Cc (389)	18	18	\$6,199	\$106,374	\$23,857,555	6.1%
Non-Malignant Breast Disorders W Cc/Mcc (600)	1	1	\$5,808	\$5,628	\$22,886,663	103.2%
Simple Pneumonia & Pleurisy W Cc (194)	64	64	\$6,976	\$401,235	\$20,964,835	1.7%
Nutritional & Misc Metabolic Disorders W/O Mcc (641)	57	57	\$7,423	\$229,074	\$19,135,195	3.1%
Major Male Pelvic Procedures W/O Cc/Mcc (708)	32	32	\$4,727	\$254,195	\$15,663,674	7.6%
Kidney & Urinary Tract Infections W/O Mcc (690)	71	71	\$5,576	\$354,775	\$15,497,663	1.4%
Simple Pneumonia & Pleurisy W Mcc (193)	49	49	\$3,669	\$425,400	\$15,380,771	0.9%
Cardiac Arrhythmia & Conduction Disorders W/O Cc/Mcc (310)	46	46	\$9,735	\$162,618	\$13,804,009	4.0%
Transurethral Prostatectomy W/O Cc/Mcc (714)	44	44	\$2,613	\$185,949	\$12,749,570	12.4%
Chronic Obstructive Pulmonary Disease W Cc (191)	42	42	\$2,948	\$261,758	\$11,990,915	1.3%
Respiratory System Diagnosis W Ventilator Support 96+ Hours (207)	15	15	\$4,479	\$548,469	\$11,883,596	0.7%
All Other Codes	6,392	6,392	\$226,107	\$78,723,130	\$181,969,025	0.2%
Combined	7,233	7,233	\$390,957	\$86,617,884	\$749,379,080	0.7%

**Table J5: Service Specific Underpayment Rates: All Contractors**

Service Billed to Part B/DME/Part A including Inpatient Hospital PPS	Number of Claims in Sample	Number of Lines in Sample	Dollars Underpaid in Sample	Total Dollars Paid in Sample	Projected Dollars Underpaid	Underpayment Rate
All	39,669	64,283	\$405,953	\$112,171,385	\$1,002,429,605	0.3%

# Appendix K: Statistics and Other Information for the CERT Sample

The following tables provide information on the sample size for each category for which this report makes national estimates. These tables also show the number of claims containing errors and the percent of claims with payment errors. Data in these tables for Part B and DME data is expressed in terms of line items, and data in these tables for Part A data is expressed in terms of claims. Totals cannot be calculated for these categories since CMS is using different units for each type of service.

**Table K1: Claims in Error: Part B**

Variable	Number of Claims Reviewed	Number of Claims Containing Errors	Percent of Claims Containing Errors
<b>HCPCS Procedure Code</b>			
All Codes With Less Than 30 Claims	7,333	851	11.6%
Chiropractic manipulation (98941)	492	197	40.0%
Ground mileage (A0425)	389	24	6.2%
Initial hospital care (99223)	505	233	46.1%
Office/outpatient visit est (99213)	841	63	7.5%
Office/outpatient visit est (99214)	1,403	260	18.5%
Routine venipuncture (36415)	647	113	17.5%
Subsequent hospital care (99232)	1,485	220	14.8%
Subsequent hospital care (99233)	991	585	59.0%
Therapeutic exercises (97110)	624	122	19.6%
Other	15,632	2,568	16.4%
<b>TOS Code</b>			
Ambulance	947	56	5.9%
Chiropractic	712	281	39.5%
Hospital visit - initial	721	342	47.4%
Hospital visit - subsequent	3,085	904	29.3%
Lab tests - other (non-Medicare fee schedule)	2,537	558	22.0%
Minor procedures - other (Medicare fee schedule)	2,529	471	18.6%
Office visits - established	2,962	547	18.5%
Other drugs	1,075	171	15.9%
Specialist - other	891	10	1.1%
Undefined codes	722	0	0.0%
Other	14,161	1,896	13.4%
<b>Resolution Type</b>			
Automated	6,805	440	6.5%
Complex	19	1	5.3%
None	23,480	4,791	20.4%
Routine	38	4	10.5%
<b>Diagnosis Code</b>			
Arthropathies and related disorders	1,722	289	16.8%
Diseases of other endocrine glands	1,143	213	18.6%
Disorders of the eye and adnexa	1,716	81	4.7%
Dorsopathies	1,562	262	16.8%
Hypertensive disease	1,055	231	21.9%
Ischemic heart disease	913	119	13.0%



Variable	Number of Claims Reviewed	Number of Claims Containing Errors	Percent of Claims Containing Errors
Osteopathies, chondropathies, and acquired musculoskeletal deformities	1,099	292	26.6%
Other forms of heart disease	1,248	275	22.0%
Other metabolic disorders and immunity disorders	902	196	21.7%
Symptoms	3,357	592	17.6%
Other	15,625	2,686	17.2%

**Table K2: Claims in Error: DME**

Variable	Number of Claims Reviewed	Number of Claims Containing Errors	Percent of Claims Containing Errors
<b>Service</b>			
All Codes With Less Than 30 Claims	3,435	1,708	49.7%
Blood glucose/reagent strips (A4253)	1,263	1,044	82.7%
Calibrator solution/chips (A4256)	416	331	79.6%
Disp fee inhal drugs/30 days (Q0513)	413	241	58.4%
Elevating whlchair leg rests (K0195)	408	351	86.0%
Lancets per box (A4259)	748	611	81.7%
Oxygen concentrator (E1390)	1,317	951	72.2%
PWC gp 2 std cap chair (K0823)	1,002	864	86.2%
Portable gaseous O2 (E0431)	608	443	72.9%
U1 sealed lead acid battery (E2365)	319	271	85.0%
Other	9,698	5,999	61.9%
<b>TOS Code</b>			
CPAP	1,357	822	60.6%
Glucose Monitor	2,832	2,288	80.8%
Lower Limb Prostheses	1,569	946	60.3%
Nebulizers & Related Drugs	1,633	935	57.3%
Ostomy Supplies	428	183	42.8%
Oxygen Supplies/Equipment	2,341	1,663	71.0%
Support Surfaces	511	351	68.7%
Wheelchairs Manual	411	326	79.3%
Wheelchairs Motorized	1,482	1,220	82.3%
Wheelchairs Options/Accessories	2,154	1,528	70.9%
Other	4,909	2,552	52.0%
<b>Resolution Type</b>			
Automated	2,786	29	1.0%
Complex	46	13	28.3%
None	16,721	12,732	76.1%
Routine	74	40	54.1%
<b>Diagnosis Code</b>			
All Codes With Less Than 30 Claims	876	440	50.2%
Arthropathies and related disorders	1,009	772	76.5%
Chronic obstructive pulmonary disease and allied conditions	3,337	2,151	64.5%
Diseases of other endocrine glands	3,503	2,764	78.9%
No Matching Diagnosis Code Label	1,528	955	62.5%
Open wound of lower limb	1,515	930	61.4%
Other disorders of the central nervous system	963	555	57.6%
Other forms of heart disease	604	435	72.0%
Persons with a condition influencing their health status	1,124	499	44.4%
Symptoms	783	511	65.3%
Other	4,385	2,802	63.9%

**Table K3: Claims in Error: Part A Excluding Inpatient Hospital PPS**

Variable	Number of Claims Reviewed	Number of Claims Containing Errors	Percent of Claims Containing Errors
<b>Type Of Bill</b>			
Clinic ESRD	437	128	29.3%
Clinical Rural Health	352	13	3.7%
Critical Access Hospital	297	83	27.9%
Home Health	1,507	177	11.7%
Hospital Inpatient (Part A)	226	23	10.2%
Hospital Other Part B	164	63	38.4%
Hospital Outpatient	2,106	457	21.7%
Nonhospital based hospice	373	10	2.7%
SNF Inpatient	1,022	128	12.5%
SNF Inpatient Part B	165	28	17.0%
Other	432	49	11.3%
<b>TOS Code</b>			
Clinic ESRD	437	128	29.3%
Clinical Rural Health	352	13	3.7%
Critical Access Hospital	297	83	27.9%
Home Health	1,507	177	11.7%
Hospital Inpatient (Part A)	226	23	10.2%
Hospital Other Part B	164	63	38.4%
Hospital Outpatient	2,106	457	21.7%
Nonhospital Based Hospice	373	10	2.7%
SNF Inpatient	1,022	128	12.5%
SNF Inpatient Part B	165	28	17.0%
Other	432	49	11.3%
<b>Diagnosis Code</b>			
All Codes With Less Than 30 Claims	211	27	12.8%
Arthropathies and related disorders	251	43	17.1%
Chronic obstructive pulmonary disease and allied conditions	180	27	15.0%
Diseases of other endocrine glands	360	60	16.7%
Hypertensive disease	296	58	19.6%
Nephritis, nephrotic syndrome, and nephrosis	514	140	27.2%
Other forms of heart disease	397	55	13.9%
Persons encountering health services for specific procedures and aftercare	930	137	14.7%
Rheumatism, excluding the back	162	20	12.3%
Symptoms	534	109	20.4%
Other	3,246	483	14.9%

**Table K4: Claims in Error: Part A Inpatient Hospital PPS**

Variable	Number of Claims Reviewed	Number of Claims Containing Errors	Percent of Claims Containing Errors
<b>DRG Label</b>			
AICD Generator Procedures (245)	138	56	40.6%
Cardiac Defibrillator Implant W/O Cardiac Cath W/O Mcc (227)	211	130	61.6%
Circulatory Disorders Except Ami, W Card Cath W/O Mcc (287)	107	24	22.4%
Major Joint Replacement Or Reattachment Of Lower Extremity W/O Mcc (470)	451	87	19.3%
Other Vascular Procedures W Cc (253)	110	19	17.3%
Perc Cardiovasc Proc W/O Coronary Artery Stent W/O Mcc (251)	115	39	33.9%
Permanent Cardiac Pacemaker Implant W Cc (243)	139	107	77.0%
Permanent Cardiac Pacemaker Implant W/O Cc/Mcc (244)	221	184	83.3%
Septicemia Or Severe Sepsis W/O Mv 96+ Hours W Mcc (871)	152	10	6.6%
Spinal Fusion Except Cervical W/O Mcc (460)	259	64	24.7%
Other	5,330	1,200	22.5%
<b>TOS Code</b>			
All Codes With Less Than 30 Claims	696	147	21.1%
Cardiac Defibrillator Implant W/O Cardiac Cath (226 , 227)	212	131	61.8%
Chronic Obstructive Pulmonary Disease (190 , 191 , 192)	152	27	17.8%
Heart Failure & Shock (291 , 292 , 293)	177	27	15.3%
Major Joint Replacement Or Reattachment Of Lower Extremity (469 , 470)	461	88	19.1%
Other Vascular Procedures (252 , 253 , 254)	154	28	18.2%
Permanent Cardiac Pacemaker Implant (242 , 243 , 244)	366	293	80.1%
Septicemia Or Severe Sepsis W/O Mv 96+ Hours (871 , 872)	178	12	6.7%
Simple Pneumonia & Pleurisy (193 , 194 , 195)	160	19	11.9%
Spinal Fusion Except Cervical (459 , 460)	262	64	24.4%
Other	4,415	1,084	24.6%
<b>Diagnosis Code</b>			
Arthropathies and related disorders	461	128	27.8%
Cerebrovascular disease	251	27	10.8%
Complications of surgical and medical care, not elsewhere classified	445	99	22.2%
Dorsopathies	361	123	34.1%
Ischemic heart disease	415	126	30.4%
Other bacterial diseases	194	16	8.2%
Other diseases of digestive system	193	32	16.6%
Other forms of heart disease	991	465	46.9%
Pneumonia and influenza	196	27	13.8%
Symptoms	320	118	36.9%
Other	3,406	759	22.3%

**Table K5: Included and Excluded in the Sample**

Improper Payment Rate	Paid Line Items	Unpaid Line Items	Denied For Non-Medical Reasons	Automated Medical Review Denials	No Resolution	RTP	Late Resolution	Inpt, RAPS, Tech Errors
Paid Claim	Include	Include	Include	Include	Exclude	Exclude	Exclude	Exclude
No Resolution	Include	Include	Include	Include	Include	Exclude	Include	Exclude
Provider Compliance	Include	Include	Include	Include	Exclude	Exclude	Exclude	Exclude

The dollars in error for the improper payment rate is based on the final allowed charges, and the dollars in error for the provider compliance improper payment rate is based on the fee schedule amount for the billed service. The no resolution rate is based on the number of claims where the contractor cannot track the outcome of the claim divided by no resolution claims plus all claims included in the paid or provider compliance improper payment rate.

**Table K6: Frequency of Claims that are Included and Excluded from Each Improper Payment Rate: Part B**

Error Type	Included	Dropped	Total	Percent Included
Paid	15,238	407	15,645	97.4%
No Resolution	15,238	407	15,645	97.4%
Provider Compliance	15,238	407	15,645	97.4%

**Table K7: Frequency of Claims that are Included and Excluded from Each Improper Payment Rate: DME**

Error Type	Included	Dropped	Total	Percent Included
Paid	10,117	233	10,350	97.7%
No Resolution	10,124	226	10,350	97.8%
Provider Compliance	10,117	233	10,350	97.7%

**Table K8: Frequency of Claims that are Included and Excluded from Each Improper Payment Rate: Part A including Inpatient Hospital PPS**

Error Type	Included	Dropped	Total	Percent Included
Paid	14,314	3,183	17,497	81.8%
No Resolution	14,320	3,177	17,497	81.8%
Provider Compliance	14,314	3,183	17,497	81.8%